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A Summary of Selected Fish and Wildlife Characteristics of the 50 States

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Prepared for use with the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

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U.S. Department of the Interior, Fish and Wildlife Service,
in cooperation with the International Association of
Fish and Wildlife Agencies

About the International Association of Fish and Wildlife Agencies

The "International Association . . ." founded in 1902, is composed of state, federal and provincial fish and wildlife managing agencies of the United States, Canada and Mexico. It also includes individuals and organizations engaged in the management of fish and wildlife resources.

Its objectives are:

. . . to cultivate mutual understanding and cooperation among officials engaged in natural resource conservation . . .

. . . to promote public understanding and appreciation of the importance of conserving natural resources . . .

. . . to encourage effective workable international relationships . . .

. . . to encourage professional, rational and balanced resource management and use.

The Association holds meetings, publishes its proceedings, a news letter and reports on special concerns. Through its committees and representation in Washington it brings its expertise and prestige to bear in behalf of needed advances and reforms in fish and wildlife management at both the state and national levels. It represents the interests of its membership in sound wildlife management before congressional committees, executive departments and in judicial proceedings.

The Association's annual meeting is usually during the second week of September. A spring meeting is held in conjunction with the North American Wildlife and Natural Resources Conference. The meetings promote exchanges of ideas and philosophy between administrators and the professional fish and wildlife biologists, managers and technical workers in related fields.

The Association annually bestows its prestigious Seth Gordon Award to an individual who has contributed significantly to the administration of fish and wildlife and related programs. It also presents the Ernest Thompson Seton Award, sponsored by the Woodstream Corporation, to the agency that has done the most to create a public awareness of the need for sound resource management.

I. A. F. W. A.

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PREFACE

This unique compilation of data from the files of the State agencies which manage fish and wildlife represents a much needed data base. Prior to this, the extensive information of these agencies was not organized and presented in a systematic way for others to use. Those variables selected for inclusion were originally keyed to the anticipated analysis needs arising from the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. However, it is readily apparent that the data which follow will be useful in many facets of the fish and wildlife management effort. They were submitted in 1981 by the 54 State agencies which were members of the IAFWA. They were organized and reviewed for publication by the staffs of the U.S. Fish and Wildlife Service and the IAFWA in 1982.

We are pleased to be able to cooperate in this project and appreciate the help of the individuals who have made this a 100 percent response from the 50 States. We also are pleased to make the information in this document available to those participants and other interested parties.

Robert A. Jantzen

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Director
U.S. Fish and Wildlife Service

James A. Timmerman

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March 1983

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ACKNOWLEDGEMENTS

Each of the 54 States members of the International Association of Fish and Wildlife Agencies donated staff time in the preparation of the data reported in this document. While the individuals involved were too numerous to mention directly, we would like to take this opportunity to thank them collectively for their contributions as members of these participating organizations:

Alabama's Department of Conservation and Natural Resources, Division of Game and Fish;
Alaska's Department of Fish and Game;
Arizona's Game and Fish Department;
the Arkansas Game and Fish Commission;
California's Department of Fish and Game;
Colorado's Department of Natural Resources, Division of Wildlife;
Connecticut's Department of Environmental Protection;
Delaware's Department of Natural Resources and Environmental Control, Division of Fish and Wildlife;
Florida's Game and Fresh Water Fish Commission, and the Game and Fish Division of Florida's Department of Natural Resources;
Georgia's Department of Natural Resources, Game and Fish Division;
Hawaii's Department of Land and Natural Resources, Division of Aquatic Resources;
Idaho's Department of Fish and Game;
the Illinois Department of Conservation;
Indiana's Department of Natural Resources, Division of Fish and Wildlife;
Iowa's State Conservation Commission;
the Kansas Fish and Game Commission;
Kentucky's Department of Fish and Wildlife Resources;
Louisiana's Department of Wildlife and Fisheries;
Maine's Department of Inland Fisheries and Wildlife;
Maryland's Department of Natural Resources, Wildlife Administration;
the Massachusetts Department of Fisheries, Wildlife and Recreational Vehicles, Division of Marine Fisheries, and the Division of Fisheries and Wildlife;
Michigan's Department of Natural Resources;
Minnesota's Department of Natural Resources, Division of Fish and Wildlife;
Mississippi's Department of Wildlife Conservation;
Missouri's Department of Conservation;
Montana's Department of Fish, Wildlife and Parks;
Nebraska's Game and Parks Commission;
Nevada's Department of Wildlife;
New Hampshire's Fish and Game Department;
New Jersey's Department of Environmental Protection, Division of Fish, Game, and Wildlife;
New Mexico's Department of Game and Fish;
New York's Department of Environmental Conservation, Division of Fish and Wildlife;
North Carolina's Wildlife Resources Commission;
North Dakota's State Game and Fish Department;
Ohio's Department of Natural Resources, Division of Wildlife;
Oklahoma's Department of Wildlife Conservation;
Oregon's Department of Fish and Wildlife;
Pennsylvania's Fish Commission and Pennsylvania's Game Commission;

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Rhode Island's Department of Environmental Management, Division of Fish and Wildlife;
South Carolina's Wildlife and Marine Resources Department;
South Dakota's Department of Game, Fish and Parks;
Tennessee's Wildlife Resources Agency;
the Texas Parks and Wildlife Department;
Utah's State Department of Natural Resources, Division of Wildlife Resources;
Vermont's Agency of Environmental Conservation, Fish and Game Department;
Virginia's Commission of Game and Inland Fisheries;
Washington's Department of Fisheries and Washington's Department of Game;
West Virginia's Department of Natural Resources, Division of Wildlife Resources;
Wisconsin's Department of Natural Resources; and,
Wyoming's Game and Fish Department.

Particular thanks are appropriate for the staffs in Colorado, Michigan, North Carolina, and the Pennsylvania Game Commission for their criticism and comment on the pilot questionnaire.

The project officer for this undertaking was Dr. Warren L. Fisher. He is on a special IPA assignment with the Division of Program Plans of the Fish and Wildlife Service from the State University of New York.

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About this Document

This document had its origin in staff discussions between the International Association of Fish and Wildlife Agencies and the U.S. Fish and Wildlife Service. A need was felt to analyze the data from the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation in view of factors affecting supplies of fish and wildlife, such as access to them, measures of available habitat, stocking programs, State management efforts, and the opportunity to catch a fish or bag a bird or animal. Unlike other data such as the size of each State, their incomes, or their population, these wildlife measures we have termed "supply characteristics" were not generally available on a State-by-State basis for a time period which would make them comparable to the 1980 National Survey. A decision was made to ask each of the IAFWA's 54 State members to respond to the questionnaire in the Appendix. Each State member was asked to do so in the fall of 1981, and each responded.

Special instructions were included with the questionnaire asking for only best estimates of relatively available data. The questionnaire itself had been very carefully developed to gather particular information with a minimum of inconvenience for the respondent. Selected questions were asked not only because a response would be useful, but also to determine whether data were available. In some cases, we learned that more information was available than expected. In others, we verified that little was known on a Statewide basis with any degree of certainty. This, in itself, is useful. We should point out as well that some questions were deliberately left open to intepretation. A good example may be our query about the number of acres of wetlands. By not defining "wetlands" in any particular way, respondents were invited to submit the acres they regard as wetlands, rather than not responding to a question which used a definition different from the one their records are built upon. This compromise gave us more useful data, even though some measure of internal consistency was sacrificed. The notes for the tables in Sections A-E often address matters of data definition as they are known to vary from State-to-State.

Our enthusiam for this compilation grew during conversations with the State staff reviewers who had reviewed the pilot questionnaire. They saw applications for the information being sought in many areas beyond those of maximizing the usefulness of the 1980 National Survey. In addition, these data appeared to them to have potential as a useful general reference. For these reasons, a decision was made to tighten the quality of the responses through callbacks to respondents and to publish this Summary for all to use. The staff of the Service prepared this material for publication in consultation with the States and the IAFWA by factoring it into their schedules over about 12 months.

We believe this publication is definitive in some areas but not in others. The data being reported were collected in different places, at different times, and for a variety of purposes. Yet, this Summary will have many uses. Hopefully, you will find it a valuable reference in your working library.

SECTION A

Aquatic Habitats and Wetlands

Tables A.1 and A.2 show inland waters as they were inventoried in 1980 or another recent year. Table A.3 presents the number of wetlands in each State and their total acreage as reported by each State. In the fall of 1981, 45 States reported some or all of their waters under warmwater and coldwater categories. Another four States reported their State's total water without the warmwater/coldwater distinction. These reports are summarized on Tables A.1 and A.2, with the Great Lakes and the Great Salt Lake excluded. These large lakes are reported in the notes accompanying the tables, rather than in the tables, since these lakes often require special treatment in discussions and analyses. The aquatic habitat tables and their notes show that coldwater habitat is not available or very limited in many States, including Alabama, Florida, Hawaii, Kansas, Kentucky, Louisiana, Mississippi, Oklahoma, and Texas. They show, too, that manmade bodies of water are dominant except in certain areas of the midwest and northeast. Farm ponds are generally included in the tables, when data were available, but one should check the notes for clarification of the minimum sizes of those included, as well as for cases in which they were not available for inclusion. Persons with a special interest in farm ponds may want to refer to the Census of Agriculture.

The inventory of water by type (i.e., warmwater/coldwater) was patterned after the 1968 National Survey of Needs for Hatchery Fish. This attempt to develop comparable data for trends created some awkwardness in both the collection and the reporting of the data. Two-story and mixed fisheries are common, making a report by water type difficult. Future efforts to categorize water by type may be improvements over this one if mixed fisheries are included as a third reporting category. It should be noted that the records of many States record the units of measurement of lakes in acres, and rivers are measured in miles. To a lesser extent, acres of rivers are available also, as can be seen in Tables A.1 and A.2. To a lesser degree, reporting of lakes and ponds as either natural or manmade presents difficulty. Future efforts to update this inventory for the Nation may recognize that these once-important distinctions may have less importance than they once had.

Table A.3 shows both the number and total acres of wetlands for those States which had such estimates for 1980. Thirty-three States reported their wetlands acreage in some form. One can see that the number of wetlands was reported by just six States. Although the number of wetlands may be a useful statistic for some purposes, it is not one which is readily available. Only six States reported such data. The notes which accompany Table A.3 show that available wetland data are often out of date. While the wetlands data reported here may be the best compilation for use at this time, the Service will soon publish National statistics in The Status and Trends of Wetlands and Deepwater Habitat in the Conterminous States, 1950's to 1970's. Unlike this effort, which deliberately and necessarily left the definition of a "wetland" to the respondent, the forthcoming National report will report acreage by well-defined classes of wetlands. Hence, the user of wetlands data is advised to consider using the forthcoming report as the primary source of wetland data, when it becomes available.

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TABLE A.1

Warmwater Aquatic Habitat

	Rivers and Streams			Lakes and Ponds		Manmade Lakes and Ponds		Natural Lakes and Ponds	
State	Total number	Total acres	Total miles	Total number	Total acres	Total number	Total acres	Total number	Total acres
Alabama	--	100,000	--	--	630,000	--	628,000	--	2,000
Alaska	--	--	--	--	--	--	--	--	--
Arizona	19	--	1,040	80	33,973	80	33,973	0	0
Arkansas	--	--	9,500	93,731	621,000	--	--	--	--
California	--	28,285	3,337	438*	180,276*	353*	130,613*	85	49,663
Colorado	400*	5,000	3,000	105*	65,000	100	60,000	5	5,000
Connecticut a/	--	--	8,400	--	60,000	--	--	--	--
Delaware	14	225,288	844	57*	2,985	57*	2,985	0	0
Florida	1,711	--	11,910	7,712	3,014,890	*	*	7,712	3,014,890
Georgia	--	83,156*	12,338	65,000	531,590	65,000	531,590	*	*
Hawaii	366	--	1,500	266	1,996	264	1,965	2	30
Idaho	--	8,978*	--	--	49,427*	--	34,421*	--	15,006*
Illinois	950	256,574	13,204	83,763	301,518	79,498	221,134	4,265	80,385
Indiana	--	59,400	6,600	571*	106,741*	121*	54,507*	450	52,234
Iowa	--	--	19,000*	80,240*	131,200*	80,205*	98,200*	35*	33,000*
Kansas	--	--	8,700	56,124*	252,930*	56,124*	252,930*	0	0
Kentucky	--	200,000	14,000	50,100	261,000	50,100	261,000	*	*
Louisiana	741	986,130	62,770	663*	2,384,685*	142*	852,000*	521*	1,532,685*
Maine	--	--	6,400	759*	507,887*	--	--	--	--
Maryland	--	29,000	--	114*	25,000*	114*	25,000*	--	--
Massachusetts a/	3,200	--	4,000	3,800*	155,000*	2*	55,000*	3,800	100,000
Michigan	--	--	38,571	7,002*	597,562*	--	--	--	--
Minnesota	--	--	14,400*	2,715*	2,556,150*	--	--	--	--
Mississippi	--	151,742*	14,105*	128,180*	356,925*	--	--	--	--
Missouri	300*	387,116*	30,582*	320,000*	565,000*	320,000*	565,000*	*	*
Montana	--	2,500*	2,000*	--	--	--	--	--	--
Nebraska	23,686*	--	11,744*	18,061	192,115	17,561	155,115	500	37,000
Nevada a/	1,136	7,633	7,399	355	398,218*	--	238,218*	--	160,000*
New Hampshire	*	*	--	500*	53,131*	--	--	--	--
New Jersey	--	--	6,156	4,151*	46,660*	--	--	--	--
New Mexico	17	10,535	1,343	64	80,630	61	80,630	3	20
New York	1,000*	500,000	55,000	2,800*	1,226,240*	72*	400,000*	2,728*	826,240*
North Carolina	--	--	36,000	68,715	866,504	68,715	792,524*	11*	73,980*
North Dakota	*	--	--	180	625,000	110	548,000	70	77,000
Ohio	--	--	47,000*	31,277*	168,370	31,243*	166,170	34*	2,200*
Oklahoma	1,342	--	23,000	200,146*	1,030,000*	200,146*	1,030,000*	0	0
Oregon	--	88,600*	2,500*	670*	159,000*	382*	136,200*	288*	22,800*
Pennsylvania	400	--	20,000	2,080*	157,000*	2,000	152,000*	80*	5,200*
Rhode Island	86	682	515	353	14,024	195	8,529	158	5,495
South Carolina	55*	--	3,800	48,508*	555,000	48,508	555,000*	--	--
South Dakota	16	47,500	3,300	92,446*	778,100*	92,316*	673,200*	130*	104,900*
Tennessee	--	97,373	17,313	85,174	569,951	85,160	554,951	14	15,000
Texas	1,194	--	80,000	266,400	1,820,000	266,400	1,820,000	0	0
Utah	--	--	1,177	--	291,470*	--	--	--	--
Vermont	--	--	1,200	--	56,000	--	--	--	--
Virginia	--	--	--	46,500	217,500	46,500	217,500	0*	0*
Washington a/	--	--	50,000	8,000	--	--	--	--	--
West Virginia	--	87,940*	3,970*	17,910*	23,450*	17,909*	23,449	1*	1*
Wisconsin	3,000	--	15,000	14,958	970,869*	*	*	*	*
Wyoming	*	*	*	*	*	*	*	*	*

Notes:
A double dash (--) indicates that information is not available.
a/ Reported data are for coldwater and warmwater habitat, combined.
* See "State Notes for Table A.1."

State Notes for
Table A.1

Warmwater Habitat

California: California has 68 reservoirs of 108,600 acres that are combined warmwater and coldwater. Following California's returned questionnaire, half of the total (34 bodies with 54,300 acres) is reported as warmwater on Table A.1; the other half is reported on Table A.1 as coldwater. Data are from 1965. Colorado: Warmwater habitat for Colorado, as reported, excludes farm ponds and intermittent streams. The acreage of bodies of water fluctuates throughout the year. Acreages reported are the estimated average acreages for 1980. Delaware: Data reported for lakes and ponds exclude farm ponds. Florida: Virtually all lakes and ponds are natural. Georgia: Reported data for rivers and streams include only those wider than 10 feet. Virtually all lakes and ponds are manmade. Idaho: Data for warmwater habitat are from 1972. Indiana: Warmwater total and manmade lakes and ponds as shown exclude about 40,000 farm ponds with an average size of about one acre. Iowa: Iowa reported more than 19,000 miles of streams. It has four reservoirs (30,200 acres), 201 manmade lakes (23,000 acres), 80,000 manmade ponds (45,000 acres), and 35 natural lakes (33,000 acres). Natural ponds, sloughs, etc., are not reported. Kansas: Lakes and ponds as reported include 24 Federal reservoirs (129,500 acres), 6,100 lakes (43,500 acres) and 50,000 ponds (79,930 acres). Kentucky: Not reported are a very few and insignificant natural ponds. Louisiana: Warmwater lakes and ponds shown exclude farm ponds and Soil Conservation Service fish farm ponds. Maine: Warmwater lakes and ponds as shown may not be added to the coldwater lakes and ponds in Table A.2 to get a total of lakes and ponds for Maine. Some lakes contain both warmwater and coldwater fisheries. Data reported in Tables A.1 and A.2 are for only the 928,325 surveyed acres of water in the State. They reflect 94 percent of the State's 994,560 acres of water. Maryland: Data shown do not include 6,000 farm ponds. Massachusetts: The manmade lakes and ponds reported are the two major manmade lakes. Relatively small manmade ponds are not shown. Michigan: Warmwater lakes and ponds shown exclude 2,000 bodies of warmwater and coldwater that have a manmade structure at the outlet. Such a structure, however, does not necessarily indicate that the body is artificial, since the structure may control the level of a natural lake. Minnesota: Data for warmwater habitat are from 1971, and include water areas larger than ten acres only. The State of Minnesota contains 15,291 coldwater and warmwater lake basins that are ten acres or larger in area. 1,777 were permanently drained by 1971. Of the remaining lakes, 2,938 are high quality fish lakes, 2,865 are unclassified, 5,339 are wetlands, and 2,372 are marginal lakes having value for both fish and wildlife depending upon factors including water levels and winterkill. With the State's portion of Lake Superior (1,415,680 acres of coldwater) and marginal lakes, Minnesota has 3,815,252 acres of fish water. The total water area in the State exclusive of rivers and lakes less than ten acres is 4,547,434 acres. Mississippi: Data for warmwater habitat are from 1978. Missouri: Data are from 1976. The reported total miles of streams and rivers excludes 25,838 miles of second order streams which are seldom permanent. No estimates of natural warmwater habitat are available, although oxbows, sinkholes and similar features are present. Montana: Data reported are from 1978. These data are for only those waters which support enough fish to provide a recreational fishery. Other waters (e.g., those with no fish, small spawning streams) are not included. Nebraska: Data for rivers and streams shown include canals. The 23,686 rivers and streams reported include all lotic warmwater. Of that, 12,368 rivers and streams have valuable fishery resources. The 11,744 miles of rivers and streams reported as warmwater include 408 miles which are mixed warmwater and coldwater. All data are from 1972. Nevada: Reported acreages for lakes and ponds include interstate lakes and reservoirs. Data are from 1972. New Hampshire: Data shown apply only to lakes and ponds larger than ten acres, and exclude 28 ponds (74,360 acres) which are combined coldwater and warmwater. Also excluded are 38 principal streams (32,225 acres) which are not classified into coldwater or warmwater. New Jersey: Lakes and ponds one acre or larger are reported. New Mexico: Data for warmwater habitat are from 1981. New York: The reported 1,000 rivers and streams is an estimate, rather than a count. The acres reported include the 97,024 acres of Lake Champlain, but do not include the 2.3 million acres of Lake Ontario or the 373,760 acres of Lake Erie. Inland lakes and ponds of both water types total 750,000 acres. Because most of New York's best trout lakes are two-story fisheries, there is a duplication between warmwater and coldwater data reported, with some areas included in both. (See also Table A.2 and its notes.) North Carolina: Data for natural warmwater lakes and ponds are from 1968. Otherwise, data.reported are from 1980. North Dakota: An exact determination of river and stream miles is not available. There are roughly 20 rivers and streams plus many more small tributaries of value to fish and wildlife resources in North Dakota. Ohio: Of the 47,000 miles of rivers and streams in Ohio, 7,000 miles are considered to be fishable. Of the 31,277 total lakes and ponds 243 (126,170 acres) are private and manmade. Four of the natural lakes and ponds (40,000 acres) are private. All others are public waters. Not shown are the 2,212,480 acres of warmwater habitat that are Ohio's portion of Lake Erie. Oklahoma: Oklahoma's lakes and ponds are all manmade. Ponds number 200,000 and cover 400,000 acres. The remaining warmwater is 146 lakes (630,000 acres). Oregon: Data for warmwater habitat are from 1975. Pennsylvania: Some lakes and ponds were counted as both coldwater and warmwater habitat. (See also Table A.2.) Not shown is Pennsylvania's portion of Lake Erie (640,525 acres) which is mixed coldwater and warmwater habitat. South Carolina: The 55 rivers and streams reported include only major rivers and streams. Natural lakes and ponds are not inventoried, so the data for "total lakes and ponds" is an underestimate which includes only manmade lakes and ponds. South Dakota: Data shown for lakes and ponds include only managed bodies of water, some of which are farm ponds. However, the many farm ponds which are not managed are excluded from the figures shown. Utah: Warmwater habitat as reported excludes stock watering ponds. Great Salt Lake, which has brine shrimp but no fish, is not included in the reported acreage. Virginia: Virtually all of Virginia's warmwater lakes and ponds are manmade. West Virginia: Data are from 1972, as revised in 1981 for those warmwater impoundments over 50 acres. Wisconsin: Wisconsin's warmwater lakes and ponds are about five percent manmade and 95 percent natural. Wyoming: Warmwater habitat is not inventoried in Wyoming, since almost all waters support coldwater species. However, some intermediate fisheries (e.g., bass and walleye) do exist.

TABLE A.2

Coldwater Aquatic Habitat

	Rivers and Streams			Lakes and Ponds		Manmade Lakes and Ponds		Natural Lakes and Ponds	
State	Total number	Total acres	Total miles	Total number	Total acres	Total number	Total acres	Total number	Total acres
Alabama	1*	--	5	0	0	0	0	0	0
Alaska	--	--	--	--	--	--	--	--	--
Arizona	135	--	1,550	56	3,084	56	3,084	0	0
Arkansas	5	--	165	--	--	7	--	--	161,320
California	--	26,120	17,958	3,545*	278,316*	229*	127,288*	3,316	151,028
Colorado	2,000*	22,000*	9,000*	2,500*	120,000*	300*	100,000*	2,200*	20,000*
Connecticut a/	--	8,400*	--	--	60,000*	--	--	--	--
Delaware	4	--	134	0	0	0	0	0	0
Flordia	0	0	0	0	0	0	0	0	0
Georgia	--	7,711	3,987	230*	30,167*	--	--	--	--
Hawaii	0	0	0	1	1	0	0	1	1
Idaho	--	113,069*	16,000*	--	415,930*	111*	206,200*	--	209,730
Illinois	0	0	0	1*	*	0	0	1*	*
Indiana	2*	--	--	3*	3,375*	*	*	*	*
Iowa	128	--	280	--	--	2	15.5	--	--
Kansas	0*	0	0	0*	0	0	0	0	0
Kentucky	0*	0	0	0	0	0	0	0	0
Louisiana	0	0	0	0	0	0	0	0	0
Maine	--	--	25,600*	1,158*	727,592*	--	--	--	--
Maryland	120	--	420	--	--	--	--	--	--
Massachusetts a/	3,200	--	4,000	3,800*	155,000*	2*	55,000*	3,800	100,000
Michigan	--	--	12,610	740*	162,658*	--	--	*	*
Minnesota	--	--	1,850	223*	92,920*	--	--	*	*
Mississippi	0	0	0	0	0	0	0	0	0
Missouri	--	--	117	1	1,700	1	1,700	--	--
Montana	--	--	12,000*	300*	--	--	--	--	--
Nebraska	--	--	624*	0	0	0	0	0	0
Nevada a/	1,136	7,633	7,399	355	398,218*	--	238,218*	--	160,000*
New Hampshire	--	--	--	177*	10,973*	--	--	--	--
New Jersey	--	--	2,517	23*	14,754*	--	--	--	--
New Mexico	250*	4,035*	1,935*	62*	34,494*	51*	34,390*	11*	104*
New York	3,000*	40,000	15,000	1,200*	726,240*	40*	200,000*	1,160*	526,240*
North Carolina	--	--	4,000	--	--	1,802	2,703	0	0
North Dakota	1*	--	10*	1	*	1	*	--	--
Ohio	4	--	40	0	0	0	0	0	0
Oklahoma	2	--	*	1	14,200	1	14,200	0	0
Oregon	--	295,000*	27,000*	1,421*	302,900*	356*	240,500*	1,065*	62,400*
Pennsylvania	3,000	--	25,000	100*	20,000	--	--	--	--
Rhode Island	64	430	499	4	4,408	4	4,408	0	0
South Carolina	25*	--	200*	--	--	1	7,500	--	--
South Dakota	15	--	270	65	3,110	65	3,100	0	0
Tennessee	--	7,428	1,916	0	0	0	0	0	0
Texas	0*	0*	0*	0	0	0	0	0	0
Utah	--	--	6,880	--	92,676	--	--	--	--
Vermont	--	--	3,600	--	168,733	--	--	--	--
Virginia	750	--	3,100	40	825	40	825	0	0
Washington a/	--	--	50,000	8,000	--	--	--	--	--
West Virginia	--	3,780	1,750	--	--	--	--	--	--
Wisconsin	2,674	--	9,561	586*	32,000*	--	--	--	--
Wyoming	3,300	--	15,661	4,360	306,432	2,305	242,195	2,055	64,237

Notes:
A double dash (--) indicates that information is not available.
a/ Reported data are for coldwater and warmwater habitat, combined.
* See "State Notes for Table A.2."

State Notes for
Table A.2

Coldwater Habitat

Alabama: The sole coldwater habitat in the State is the tailwater of the Lewis Smith Reservoir. Colorado: Intermittent streams are not reported. The acreage of bodies of water fluctuates throughout the year. Acreages reported are the estimated average acreages for 1980. California: California has 68 reservoirs of 108,600 acres that are combined coldwater and warmwater. Following California's returned questionnaire, half of the total (34 bodies with 54,300 acres) is reported as coldwater on Table A.2; the other half is reported on Table A.1 as warmwater. Data are from 1965. Georgia: Reported data for coldwater lakes and ponds is from 1970. Idaho: Data for coldwater habitat are from 1972. Illinois: Not tabulated is the sole coldwater of Illinois which is 976,640 acres in Lake Michigan. Indiana: The State's coldwater habitat is dominated by the Indiana portion of Lake Michigan (149,295 acres) which is not tabulated. There are also two coldwater lakes (3,375 acres) and two tributary streams of Lake Michigan which have salmon runs. Kansas: While Kansas makes limited seasonal stockings of trout, there are no coldwater habitats in the State. Kentucky: There are tailwater areas where trout are stocked in the spring of each year. These waters were reported in Table A.1, and are not reported separately in Table A.2. Maine: Coldwater lakes and ponds as shown may not be added to the warmwater lakes and ponds in Table A.1 to get a total of lakes and ponds for Maine. Some lakes contain both coldwater and warmwater fisheries. Data reported in Tables A.1 and A.2 are for only the 928,325 surveyed acres of water in the State. They reflect 94 percent of the State's 994,560 acres of water. Massachusetts: The manmade lakes and ponds reported are the two major manmade lakes. Relatively small manmade ponds are not shown. Michigan: Coldwater lakes and ponds shown exclude 2,000 bodies of coldwater and warmwater that have a manmade structure at the outlet. Such a structure, however, does not necessarily indicate that the body is artificial, since the structure may control the level of a natural lake. Not tabulated are 24,474,000 acres of coldwater habitat in Lakes Michigan and Superior. Minnesota: Data for coldwater habitat are from 1971, and include water areas larger than ten acres only. The State of Minnesota contains 15,291 coldwater and warmwater lake basins that are ten acres or larger in area. 1,777 were permanently drained by 1971. Of the remaining lakes, 2,938 are high quality fish lakes, 2,865 are unclassified, 5,339 are wetlands, and 2,372 are marginal lakes having value for both fish and wildlife depending upon factors including water levels and winterkill. With the State's portion of Lake Superior (1,415,680 coldwater acres not shown in Table A.2) and marginal lakes, Minnesota has 3,815,252 acres of fish water. The total water area in the State exclusive of rivers and lakes less than ten acres is 4,547,434 acres. Montana: Data for coldwater habitat are from 1978. Nebraska: Data for coldwater habitat are from 1972. Nevada: Reported acreages for lakes and ponds include interstate lakes and reservoirs. Data are from 1972. New Hampshire: Data shown apply only to lakes and ponds larger than ten acres and exclude 28 ponds (74,360 acres) which are combined coldwater and warmwater. Also excluded are 38 principal streams (32,225 acres) which are not classified into coldwater or warmwater. New Jersey: Coldwater lakes and ponds shown are two-story coldwater fisheries. New Mexico: Data for coldwater habitat are from 1981. New York: The reported number of rivers and streams and lakes and ponds are estimates, rather than hard counts. The acres reported include the 97,024 acres of Lake Champlain, but do not include the 2.3 million acres of Lake Ontario or the 373,760 acres of Lake Erie. Inland lakes and ponds of both water types total 750,000 acres. Because most of New York's best trout lakes are two-story fisheries, there is a duplication between warmwater and coldwater reported, with some areas included in both. (See also Table A.1 and its notes.) North Dakota: The only coldwater river fishery is in a ten mile reach of the Missouri River below Garrison Dam. A portion of Lake Sakakawea above Garrison Dam is suitable coldwater fishery habitat, but its size is varying and has not been determined. Oklahoma: Oklahoma has a 7.9 mile trout fishery in Lake Tenkiller's tailwater and a two-story trout fishery in Lake Brokenbow (14,200 acres). Trout are also stocked from October through March in the Blue River public fishing and hunting area where there is a seasonal trout fishery. Oregon: Data for coldwater habitat are from 1975. Pennsylvania: Most of the coldwater lakes and ponds are manmade. A few are natural. Not shown is 640,525 acres of Lake Erie which support both warmwater and coldwater species. South Carolina: The number of coldwater streams (25) and their extent (200 miles) are approximations. Texas: Texas has a seasonal trout fishery in three (and sometimes four) tailwater areas. Wisconsin: Coldwater habitat shown excludes 6,439,680 acres which are the waters of Lake Michigan and Lake Superior in the State of Wisconsin.

TABLE A.3

Wetland Habitat

State	Total number of wetlands	Total acres
Alabama	na	na
Alaska	na	na
Arizona	na	na
Arkansas	na	na
California	na	790,000*
Colorado	na	na
Connecticut	na	650,000*
Delaware	na	110,000*
Florida	na	4,500,000*
Georgia	na	1,287,661*
Hawaii	na	na
Idaho	na	na
Illinois	na	50,000
Indiana	12	2,850
Iowa	na	75,000*
Kansas	72	46,532*
Kentucky	na	157,000
Louisiana	na	3,502,756*
Maine	na	na
Maryland	1,557*	307,418*
Massachusetts	na	362,165*
Michigan	na	3,217,134*
Minnesota	5,339*	463,564*
Mississippi	na	na
Missouri	na	35,423*
Montana	na	na
Nebraska	13,696*	171,487*
Nevada	na	530,400
New Hampshire	na	na
New Jersey	na	366,985*
New Mexico	na	na
New York	na	1,200,000
North Carolina	na	5,885,000*
North Dakota	na	2,600,000
Ohio	na	95,000
Oklahoma	na	na
Oregon	na	286,826
Pennsylvania	na	na
Rhode Island	na	60,000*
South Carolina	na	1,350,975*
South Dakota	373,000	1,381,500
Tennessee	—	—
Texas	na	412,516
Utah	na	557,000*
Vermont	na	93,000
Virginia	na	212,800*
Washington	na	na
West Virginia	na	44,483*
Wisconsin	na	2,000,000
Wyoming	na	na

NOTES: A double dash (—) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Table A.3."

State Notes for
Table A.3

Wetland Habitat

California: California reported 216,000 acres of marsh, 227,000 acres of seasonal marsh, and 347,000 acres of riparian habitat as wetlands. Data are from 1965. Connecticut: The 650,000 acres of wetlands shown is the average of the reported five million to eight million acres. Delaware: Delaware's reported wetlands are coastal wetlands. Florida: The 4.5 million acres of wetlands shown is the average of the reported 3.5 million to 5.5 million acres. Georgia: Wetlands data shown are from a 1970 study. Iowa: The reported 75,000 acres of wetlands is an approximation. Kansas: The 46,532 acres of wetlands shown includes 11,682 acres of wetlands in three refuges and 34,850 acres of wetlands not in refuges. Not shown are 4,238 acres of seasonally flooded lands in the three refuges. Louisiana: Wetlands data shown are from a 1981 study. Maryland: Data apply only to warm-water wetlands of 5 acres or more. Massachusetts: The wetland acreage shown includes 205,759 acres of freshwater wetlands with water more than three feet deep, 113,126 acres of other freshwater wetlands and 43,280 acres of saltwater wetlands. All data are from a 1971 study. Michigan: The 3,217,134 acres of wetlands shown include 310,509 acres of high waterfowl value, 2,013,252 acres of moderate waterfowl value, 430,095 acres of low waterfowl value, and 463,218 acres of neligible waterfowl value. All data are from a 1954 study. Minnesota: Wetlands data shown are from a 1971 study. Missouri: Wetlands data shown are from a 1977 study. Nebraska: Shown are 355 wetlands which total 16,106 acres in the 17 counties of the Rainwater Basin, plus 13,341 wetlands which total 155,381 acres in the Sandhills. The Rainwater Basin data are from 1959-65 and 1981 surveys. The Sandhills data are from 1962-68 surveys. New Jersey: The wetland acreage shown includes 136,063 acres of inland wetlands and 230,922 acres of tidal marsh. North Carolina: Wetlands data shown are from a 1962 study. Rhode Island: Rhode Island wetlands were determined by a 15 percent sample of town aerial photographs. Wetlands include marshes, bogs, swamps and marine wetlands. Wetland data are from about 1970. South Carolina: Wetlands reported are coastal wetlands. Utah: Wetland acreage shown includes 402,000 acres of first magnitude marsh (stable water supply), 73,000 acres of second magnitude marsh (lacks dependable or continuous water supply), and 82,000 acres of third magnitude marsh (has water only in years of high precipitation). Virginia: Wetland acreage shown includes tidal salt and freshwater marshes only. West Virginia: Wetland acreage reported is for non-channel wetlands--those not associated with lakes.

Section B

Fish and Birds Stocked or Released in 1980

The data in the first four tables of this Section show what is known about the stocking of trout, salmon, steelhead, largemouth bass, smallmouth bass, striped bass (and hybrids), walleye and sauger, muskellunge (and hybrids), northern pike, catfish, bluegill, sunfish, and other fish. With the exception of bluegill and sunfish, all of these species were named directly on Enclosure B of the IAFWA questionnaire (see Appendix). A sufficiently large number of States indicated stockings of bluegill and sunfish to warrant their being reported separately. Birds stocked or released are shown in Table B.5, with an emphasis on wild turkey, quail, grouse, pheasant, and Hungarian and chukar partridge.

Useful details about the data in this Section are often available in the notes which accompany the tables. These may be particularly helpful in trying to overcome the fact that while some stockings of fish are conveniently recorded in terms of pounds of fish, others are recorded in terms of the number of fish stocked. These data should be recognized as approximations. Even though the attempt being made was to discover all fish and birds stocked and released from all State, Federal and private sources, all of these data are not commonly available to the reporting States. This means that the primary components of the totals shown are from State and Federal sources, with private stockings or releases included when they were known. The error may be small in many States for fish. It is probably much more of a factor with respect to private releases of game birds.

Having noted these caveats, we feel strongly that these data can be used with the demand data from the 1980 National Survey of Fishing, Hunting and Wildlife-Associated Recreation to better appreciate National and regional parameters of the opportunities these species provide. These analyses may be more comprehensive through reference to the harvest and success data reported in the following Section.

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TABLE B.1

Trout, Salmon and Steelhead
Stocked in 1980

State	Trout stocked*		Salmon stocked		Steelhead stocked	
	Total number	Total pounds	Total number	Total pounds	Total number	Total pounds
Alabama	10,000	3,300	0	0	0	0
Alaska	492,971*	12,596*	49,918,802*	86,844*	5,356*	462*
Arizona	3,695,145*	221,755*	0	0	0	0
Arkansas b/	1,562,300	446,371*	0	0	0	0
California	26,329,621	4,433,613	19,425,959	710,651	3,525,275	309,937
Colorado	13,653,417	1,802,224	5,770,346	3,352	0	0
Connecticut a/	1,493,916	350,000*	260,000*	*	0	0
Delaware	30,000	17,500	0	0	0	0
Florida	0	0	0	0	0	0
Georgia a/	1,036,196	287,333	0	0	0	0
Hawaii	77,600	150	0	0	0	0
Idaho	14,730,020	1,245,182	7,680,270	288,664	8,035,499	737,340
Illinois b/	218,713*	—	754,414	—	*	*
Indiana	155,189	—	826,000	—	69,803	—
Iowa	315,000	150,000	0	0	0	0
Kansas	30,003	8,130	0	0	0	0
Kentucky	407,000	—	0	0	0	0
Louisiana	0	0	0	0	0	0
Maine	1,776,044	110,645	332,018	35,003	0	0
Maryland	292,738	107,113	0	0	0	0
Massachusetts	1,000,000*	500,000	0	0	0	0
Michigan	1,800,000	194,900	8,500,000	203,500	1,800,000	21,100
Minnesota a/	1,966,220*	119,040*	0	0	0	0
Mississippi	0	0	0	0	0	0
Missouri	2,073,613	1,081,851	0	0	0	0
Montana	8,141,117	338,233	2,171,888*	972*	0	0
Nebraska	517,405	—	0	0	0	0
Nevada	1,819,600	227,100	327,000*	184*	0	0
New Hampshire	1,354,230	239,401	516,373	23,977	0	0
New Jersey b/	568,560	204,021	0	0	0	0
New Mexico b/	6,472,312	483,058	0	0	0	0
New York	9,000,000	650,000	2,800,000	38,494	324,000	13,540
North Carolina	1,052,593	201,017	*	*	41,732	3,655
North Dakota	877,275*	17,552*	436,450*	8,820*	0	0
Ohio	314,000	—	905,700	—	6,214	—
Oklahoma	192,982	—	0	0	0	0
Oregon	8,682,650	1,124,580	58,986,630	2,071,600	5,112,050	763,200
Pennsylvania a/	7,107,615	2,095,033	937,794	45,851	309,500	11,894
Rhode Island	156,904	75,969	0	0	4,500	584
South Carolina	300,000	—	0	0	0	0
South Dakota	1,200,000	120,000	145,000	3,600	0	0
Tennessee	2,519,570	440,968	0	0	0	0
Texas	61,754*	—	0	0	0	0
Utah	12,829,477	819,382	0	0	0	0
Vermont	2,072,810*	149,467*	244,281*	7,054*	121,860*	389*
Virginia	762,481	381,418	0	0	0	0
Washington a/	16,600,000	1,000,000	254,100,000*	4,503,200*	8,700,000	882,000
West Virginia a/	1,225,619	574,414	—	—	—	—
Wisconsin	4,850,000	634,000	2,962,000	38,000	0	0
Wyoming	12,210,820	564,752	0	0	0	0

NOTES: A double dash (—) indicates that information is not available.
a/ Stockings shown are for FY 1980.
b/ Stockings shown are for FY 1981.
* See "State Notes for Table B.1."

State Notes for
Table B. 1

Trout, Salmon and Steelhead Stocked in 1980

Alaska: Salmon stocking included 1,338,409 (31,812 pounds) of commercial stocking. All steelhead were commercial stockings and all trout stocked were sport stockings. Arizona: Trout stocked included 2,940,412 fingerlings (29,170 pounds) and 754,733 catchable trout (192,585 pounds). Arkansas: All trout stocked were fingerlings or adults. Connecticut: The pounds of trout and the number of salmon reported are approximations. All salmon stocked were kokanee fry. Idaho: Of the salmon stocked, 1,206,616 (1,220 pounds) were kokanee. Illinois: Trout stocked included 145,597 rainbow trout stocked in Lake Michigan. At least some of these rainbows may be termed "steelhead" by others, but Illinois prefers to report them as rainbow trout. Maine: All salmon stocked were landlocked salmon. Massachusetts: The number of trout stocked is an approximation. Montana: All salmon stocked were kokanee. Nevada: All salmon stocked were kokanee. North Carolina: While kokanee were stocked in some years prior to 1980, none were stocked in 1980. North Dakota: Trout stocked included 60,940 cutthroat (1,253 pounds), 60,000 brown trout (379 pounds), and 756,335 rainbow trout (15,920 pounds). All salmon stocked were coho salmon. Tennessee: Tennessee reported 1,200,350 trout stocked (309,544 pounds), of which about 25 percent were from Federal hatcheries. Federal hatcheries stocked 1,619,307 trout (208,810 pounds). The data shown represent the fish from Federal hatcheries plus the approximately 900,263 fish (232,158 pounds) from State hatcheries. Texas: Texas has a seasonal trout fishery in three (and sometimes four) tailwater areas. This limited fishery is not shown as coldwater habitat on Table A.2. Vermont: Stockings shown are for 1979. Washington: The Department of Game stocked only kokanee salmon. 4,100,000 (3,200 pounds) were stocked by the Department of Game in FY '80. All other salmon were stocked by Washington's Department of Fisheries.

TABLE B.2

Largemouth Bass, Smallmouth Bass and Striped Bass Stocked in 1980

State	Largemouth bass stocked		Smallmouth bass stocked		Striped bass and hybrids stocked	
	Total number	Total pounds	Total number	Total pounds	Total number	Total pounds
Alabama	713,321	—	47,392	—	946,166	—
Alaska	0	0	0	0	0	0
Arizona	2,200	170	23	19	0	0
Arkansas b/	1,090,500	77,424	40,250	2,800	936,650	6,244
California	3,395	585	0	0	48,669	6,020
Colorado	202,841	802	38,374	1,124	0	0
Connecticut a/	0	0	0	0	0	0
Delaware	21,900	—	0	0	0	0
Florida	146,926	147	0	0	90,000	90
Georgia a/	727,023	—	0	0	4,710,337	—
Hawaii	0	0	0	0	0	0
Idaho	0	0	40,000	8	0	0
Illinois b/	992,569	—	0	0	524,175	—
Indiana	62,946	—	0	0	29,338	—
Iowa	400,000	20,000	0	0	57,000	300
Kansas	502,371	2,870	152,748	300	828,706	830
Kentucky	300,000	1,850	376,000	—	830,000	1,550
Louisiana	307,200	—	0	0	1,466,748*	*
Maine	0	0	0	0	0	0
Maryland	125,000	—	—	—	16,000	—
Massachusetts	0	0	0	0	0	0
Michigan	22,000	175	21,500	255	0	0
Minnesota a/	153,502	1,311	179,628	1,443	0	0
Mississippi	817,378	—	10,000	—	954,500	—
Missouri	582,300	—	0	0	2,352,000	—
Montana	10,497	91	70,000	99	0	0
Nebraska	274,732	—	15,265	—	21,195	—
Nevada	51,325	2,000	0	0	0	0
New Hampshire	831*	257	166*	121	*	*
New Jersey b/	1,365	70*	0	0	16,646	475*
New Mexico b/	421,125	1,077	0	0	0	0
New York	39,000	233	0	0	0	0
North Carolina	26,180	91	146,479	145	796,960*	507*
North Dakota	159,000	337	14,677	118	0	0
Ohio	186,536	—	71,600	—	42,020	—
Oklahoma	2,736,970*	—	33,965	—	6,000,033*	—
Oregon	450	—	6,500	120	0	0
Pennsylvania a/	88,200	3,726	0	0	87,200	148
Rhode Island	519	59	0	0	0	0
South Carolina	554,000	—	13,432	—	3,873,651*	—
South Dakota	280,000	7,000	97,000	1,900	0	0
Tennessee	163,864	327	14,500	7	1,284,900	540*
Texas	2,226,984*	—	724,660	—	1,765,748	—
Utah	423	157	0	0	222,558*	622*
Vermont	0	0	0	0	0	0
Virginia	104,291	151	12,191	121	34,193,202*	*
Washington a/	0	0	0	0	0	0
West Virginia a/	74,341	—	10,554	—	0	0
Wisconsin	659,000	2,700	37,650	135	0	0
Wyoming	0	0	0	0	0	0

NOTES: A double dash (—) indicates that information is not available.
a/ Stockings shown are for FY 1980.
b/ Stockings shown are for FY 1981.
* See "State Notes for Table B.2."

State Notes for
Table B.2

Largemouth Bass, Smallmouth Bass and Striped Bass Stocked in 1980

Louisiana: Louisiana stocked 833,675 striped bass and 633,073 striped bass hybrids. All were fry or fingerlings. New Hampshire: All largemouth and smallmouth bass stocked were adults. Striped bass were not stocked in freshwater, although some may have been stocked in the marine area. New Jersey: Weights reported for largemouth bass and striped bass are approximations. North Carolina: North Carolina stocked 615,950 striped bass (316 pounds) and 181,010 striped bass-white bass hybrids (191 pounds). Oklahoma: Largemouth bass stocked included 214,329 Florida largemouth bass. Striped bass and hybrids stocked included 33 striped bass. All others reported were striped bass-white bass hybrids. South Carolina: Striped bass stocked included 2,182,530 striped bass and 1,691,121 striped bass-white bass hybrids. Tennessee: All striped bass stocked were fingerlings. Their reported weight is an approximation. Texas: Largemouth bass stocked included 2,192,688 Florida largemouth bass and 34,296 largemouth bass. Utah: The striped bass reported were stocked in 1979. Virginia: The striped bass stocked included 1,193,202 fingerlings weighing 1,225 pounds, and 33 million fry of undetermined weight.

TABLE B.3

Walleye, Sauger, Muskie, Tiger Muskie and Northern Pike Stocked in 1980*

State	Walleye and sauger stocked		Muskie and tiger muskie stocked		Northern pike stocked	
	Total number	Total pounds	Total number	Total pounds	Total number	Total pounds
Alabama	60,500	30	—	—	—	—
Alaska	0	0	0	0	0	0
Arizona	1,300,000*	650	0	0	0	0
Arkansas b/	957,000	4,785	*	*	0	0
California	0	0	—	—	—	—
Colorado	26,957,905	330	0	0	1,700,104	113
Connecticut a/	0	0	0	0	0	0
Delaware	0	0	0	0	0	0
Florida	0	0	0	0	0	0
Georgia a/	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois b/	6,237,000	—	491,794	—	3,502,208	—
Indiana	29,471,131	—	8,684	—	55,000	550
Iowa	115,037,000*	—	9,000	1,500	8,000,000*	—
Kansas	14,741,400	525	0	0	80,000*	—
Kentucky	1,513,100	620	36,000	2,100	0	0
Louisiana	—	—	0	0	0	0
Maine	0	0	0	0	0	0
Maryland	2,400,000	—	—	—	—	—
Massachusetts	0	0	10,000	1,000	—	—
Michigan	11,800,000	3,050	400,000	15,700	1,100,000	2,700
Minnesota a/	5,582,583	90,389	13,563	2,402	3,423,954	126,667
Mississippi	310,000	192	0	0	0	0
Missouri	6,932,000*	—	43,200	—	24*	0
Montana	1,085,100	77	0	0	903,660	325
Nebraska	2,230,388	—	3,445	—	1,834,698	—
Nevada	1,978,206*	—	0	0	0	0
New Hampshire	0	0	0	0	0	0
New Jersey b/	0	0	4,318	75*	0	0
New Mexico b/	16,067,500	52	—	—	—	—
New York	109,000,000	1,305	750,000	5,400	0	0
North Carolina	4,000,000*	40	45,890*	1,058*	0	0
North Dakota	6,328,336*	2,089	29,355	30	11,054,340*	*
Ohio	20,959,067*	—	1,205,631*	—	953,725	—
Oklahoma	12,695,500	—	0	0	0	0
Oregon	0	0	0	0	0	0
Pennsylvania a/	24,909,705	4,614	364,302*	10,473*	25,200*	775*
Rhode Island	0	0	0	0	309,483	551
South Carolina	0	0	0	0	0	0
South Dakota	11,250,000	6,000	58,000	60	11,200,000	6,000
Tennessee	4,065,000*	—	0	0	0	0
Texas	13,269,000	—	0	0	0	0
Utah	2,865,459	48	—	—	—	—
Vermont	0	0	4,508	93	0	0
Virginia	921,424*	812*	100,337	553	—	—
Washington a/	0	0	0	0	0	0
West Virginia a/	5,947,903*	—	188,918*	—	3,070,526*	—
Wisconsin	1,967,000	18,440	3,718,000	25,867	0	0
Wyoming	*	*	0	0	0	0

NOTES: A double dash (—) indicates that information is not available.

a/ Stockings shown are for FY 1980.
b/ Stockings shown are for FY 1981.
* See "State Notes for Table B.3."

State Notes for
Table B.3

Walleye, Sauger, Muskie, Tiger Muskie and Northern Pike
Stocked in 1980

Arizona: The 1,300,000 walleye and sauger reported as stocked were all walleye sac fry. Arkansas: Although Arkansas stocked no muskie or muskie hybrids in 1980, there were 42,022 white amur (24,090 pounds) stocked. Iowa: 115,000 walleye fry were stocked. 37,000 three to four inch sauger (200 pounds) were stocked. The eight million northern pike stocked were fry. Kansas: The 80,000 northern pike stocked were two to five inch fish. Missouri: The 6,932,000 walleye stocked were fingerlings. The 24 northern pike stocked were 24 inch fish. Nevada: The reported 1,978,206 walleye and sauger stocked were fry. New Jersey: 4,318 tiger muskellunge (approximately 75 pounds) were stocked. North Carolina: 4,000,000 walleye were stocked. 18,072 muskellunge (66 pounds) were stocked. Tiger muskies stocked numbered 27,818 and weighed 992 pounds. North Dakota: Walleye stocked included 3,681,000 fry and 2,647,336 fingerlings. Of the 11,054,752 northern pike stocked, 9,630,000 were fry and 1,052 were adults. The remaining 1,423,700 pike stocked were fingerlings weighing about 1,712 pounds. Ohio: Walleye and sauger stocked included 20,810,000 walleye, 94,500 sauger, and 54,567 saugeye (walleye-sauger hybrids). Of the total muskie and tiger muskie stocked, 56,947 were tiger muskie. Pennsylvania: The data for the 83,824 tiger muskellunge, 280,478 muskellunge, and 25,200 northern pike reported are from FY 1981. Tennessee: 2,500,000 of the walleye and sauger stocked were of undetermined weight. Otherwise, there were 1,555,000 walleye fry (ten pounds), 5,000 sauger fry (one pound) and 5,000 saugeye fry (one pound) stocked. Virginia: All fish stocked reported as "walleye and sauger" were walleye. West Virginia: All of the "walleye and sauger" stocked by West Virginia were walleye. 11,903 fingerlings were stocked and 5,936,000 fry were stocked. 160,000 muskellunge fry were stocked, along with 21,194 muskellunge fingerlings. Northern pike stocked included 3,015,000 fry and 55,526 fingerlings. Wyoming: A few walleye may have been stocked, but the data for them are not available.

TABLE B.4

Catfish, Bluegill, Sunfish and Other Fish Stocked in 1980

State	Catfish stocked		Bluegill stocked		Sunfish stocked		Other fish stocked
	Total number	Total pounds	Total number	Total pounds	Total number	Total pounds	
Alabama	418,732	—	—	—	—	—	—
Alaska	0	0	0	0	0	0	*
Arizona	58,050	5,071	—	—	56,000*	445*	—
Arkansas b/	731,743	536,702	575,000	—	48,000*	—	—
California	962,636	172,802	—	—	—	—	—
Colorado	789,306	18,439	3,710	590	0	0	*
Connecticut a/	—	—	—	—	—	—	—
Delaware	435*	—	20,000	—	—	—	—
Florida	5,482	1,370	493,580*	494*	273,574*	274*	*
Georgia a/	765,521	—	5,188,689	—	1,205,880*	—	—
Hawaii	89,500	900	—	—	—	—	—
Idaho	1,353,700	146	0	0	0	0	0
Illinois b/	329,416	—	356,920	—	804,540*	—	*
Indiana	226,633	—	274,000	1,827	181,000*	1,207	—
Iowa	850,000	85,000	800,000	2,000	0	0	—
Kansas	437,114	53,230	1,007,650	1,680	15,000	25	*
Kentucky	170,000	9,100	587,900	*	25,000*	116*	*
Louisiana	55,050*	*	1,725,000	1,573	0	0	—
Maine	0	0	0	0	0	0	0
Maryland	29,000	—	236,000	—	—	—	*
Massachusetts	0	0	—	—	—	—	—
Michigan	45	100	53,500	210	1,000	25	*
Minnesota a/	—	—	111,696	—	61,334	—	*
Mississippi	1,242,495	—	1,476,293	—	1,173,807*	—	—
Missouri	1,867,800	—	2,383,900	—	144,800	—	*
Montana	0	0	0	0	0	0	—
Nebraska	369,608	—	1,051,873	—	83	—	*
Nevada	41,690	1,668	0	0	0	0	*
New Hampshire	0	0	0	0	0	0	*
New Jersey b/	5,000	1,000*	4,436	630*	0	0	0
New Mexico b/	719,995	15,552	320	20	0	0	*
New York	0	0	0	0	0	0	—
North Carolina	82,950	1,141	109,160*	138*	61,290*	108*	*
North Dakota	0	0	7,470*	1,748*	0	0	*
Ohio	582,200	—	486,590	—	212,019*	—	*
Oklahoma	896,226*	—	1,133,558	—	200*	—	*
Oregon	1,374	60	—	—	—	—	*
Pennsylvania b/	13	36	230	127	140	36	*
Rhode Island	0	0	0	0	0	0	*
South Carolina	180,000	—	2,750,000*	—	250,000*	—	—
South Dakota	191,000	1,900	2,400	600	0	0	—
Tennessee	228,321	6,022	463,873	906	370,907*	374	—
Texas	2,001,997	—	0	0	139,636	—	—
Utah	13,426,654*	2,329*	—	—	—	—	*
Vermont	0	0	0	0	0	0	0
Virginia	194,945	1,663	—	—	—	—	—
Washington a/	0	0	0	0	0	0	—
West Virginia a/	171,580*	—	1,879	—	0	0	—
Wisconsin	0	0	0	0	0	0	—
Wyoming	0	0	0	0	0	0	*

NOTES: A double dash (—) indicates that information is not available.

a/ Stockings shown are for FY 1980.

b/ Stockings shown are for FY 1981.

* See "State Notes for Table B.4."

State Notes for
Table B.4

Catfish, Bluegill, Sunfish and Other Fish Stocked in 1980

Alaska: Alaska stocked 51,272 emergent grayling fry with a total weight of 1.2 pounds. Arizona: The reported sunfish stocked were all redear sunfish. Arkansas: Of the 48,000 sunfish stocked, 12,000 were redear sunfish. Arkansas stocked 5,526,500 threadfin and gizzard shad (276,325 pounds, predominately threadfin) in 1980. Colorado: In addition to the stockings reported in Tables B.1-B.4, Colorado stocked 389,250 warmwater fish (5,442 pounds). Delaware: The 435 catfish stocked were channel catfish. Florida: The reported 493,580 bluegill stocked included shellcrackers. All sunfish reported were redbreast sunfish. Not tabulated in Tables B.1-B.4 are 2,075,375 sunshine bass (Morone hybrids) which weighed 2,075 pounds. Georgia: All sunfish reported were redear sunfish. Idaho: Idaho stocked 70,596 mackinaw (6,896 pounds). Illinois: 52,500 crappie, 124,000 lake trout, and 209,907 miscellaneous species were stocked. All sunfish stocked were redear sunfish. Indiana: All sunfish stocked were redear sunfish. Kansas: 8,900 threadfin shad weighing 2,000 pounds were stocked. Kentucky: The bluegills stocked were fingerlings (one to one and one half inches). All sunfish reported were redbreast sunfish. 2,500 threadfin shad were stocked. Louisiana: Catfish stocked were all fry or fingerlings. Maine: 215,115 lake trout weighing 15,720 pounds were stocked. Maryland: Maryland stocked 35,000 shad in 1980. Michigan: 214 yellow perch weighing two pounds were stocked. Minnesota: 314,174 lake trout weighing 18,320 pounds were stocked. Mississippi: All sunfish reported were redear sunfish. Missouri: 56,800 paddlefish, 1,844,000 fathead minnows, 96,575 threadfin shad, 1,200 yellow perch and 2,000 grass carp were stocked. Nebraska: 28,240 rock bass, 656 crappie, 22,134 yellow perch, 14 white bass, 3,500 sand shiner, 24,860 golden shiner, 30 carp, 625 grass carp, 100 gallons of crayfish, 67,235 bullfrog tadpoles, and over 243,860 fathead minnows were stocked. Nevada: 4,500 black bullhead (not reported in Table B.4 as catfish) and 300 crappie were stocked. New Hampshire: 1,977 adult American shad were stocked. New Jersey: Weights for the catfish and bluegill stocked are approximations. New Mexico: 50 black bullhead weighing seven pounds (not reported in Table B.4 as catfish) were stocked. 465 white crappie (40 pounds) and 1,386 yellow perch (420 pounds) were stocked. North Carolina: Bluegills stocked, as reported, including 91,160 bluegills (120 pounds) and 18,000 bluegill-redear hybrids (18 pounds). Sunfish stocked included 45,000 redear sunfish (90 pounds) and 16,290 redbreast sunfish (18 pounds). 20,650 threadfin shad (995 pounds), and 211,097 spotted bass (133 pounds) were stocked. North Dakota: Not shown in Table B.4 are 2,580 fish reported as "bluegill and crappie." In addition, 1,918 crappie (358 pounds), about 82,924 yellow perch, 1,170,000 freshwater shrimp, 61,700 spottail shiners, and 1,754,550 fathead minnows (weighing about 6,091 pounds) were stocked. Ohio: Catfish reported does not include 220 brown bullhead stocked. Sunfish stocked included 45,019 redear sunfish and 167,000 miscellaneous sunfish. 28 crappie and 186,707 yellow perch were stocked. Oklahoma: Catfish reported in Table B.4 includes 147,258 blue catfish. All sunfish stocked were redear sunfish. 39,000 threadfin shad were stocked. Oregon: 423 warmwater fish (weighing 18 pounds) not otherwise specified were stocked. Pennsylvania: In FY 1981, Pennsylvania stocked the following fish not otherwise reported:

1,500 chain pickerel (170 pounds), 1,500 amur river pike (101 pounds), 2,509,700 American shad (24 pounds), 25,257 black crappie (377 pounds), 16,650 brown bullhead (16,650 pounds), 1,500 carp (4,875 pounds), 3,048 yellow perch (1,076 pounds), 4,100 alewives (53 pounds), and 265,000 fathead minnows (771 pounds). Rhode Island: 10,000 landlocked alewives and 4,700 shad weighing 14,000 pounds were stocked. South Carolina: The 2,750,000 bluegill reported includes both bluegill and shellcracker. The sunfish reported were all red-breast sunfish. Tennessee: All sunfish reported were redear sunfish. Utah: Catfish data are from 1978. 117,008 lake trout (2,225 pounds) were stocked in 1980 and 2,010,000 threadfin shad (286 pounds) were stocked in 1978. West Virginia: Shown are 171,580 catfish fingerlings stocked. Not shown are an unkown number of adult catfish that weighed 5,800 pounds when stocked. Wyoming: 365,044 lake trout weighing 4,063 pounds were stocked.

TABLE B.5

Birds Released in 1980[a]

State	Wild turkey released	Quail released	Grouse released	Pheasant released	Hungarian/chukar partridge released	Other birds released
Alabama	49	0	0	0	0	0
Alaska	0	0	0	0	0	—
Arizona	0	0	0	0	0	—
Arkansas	300*	0	50	375*	0	0
California	0	0	—	4,000	—	—
Colorado	127	81	0	0	0	0
Connecticut	16*	2,720*	0	37,443*	500*	—
Delaware	58*	1,000*	0	500*	0	0
Florida	0	0	0	0	0	—
Georgia	—	—	—	—	—	—
Hawaii	0	0	0	0	0	0
Idaho	25	0	0	13,685	1,031*	—
Illinois	84*	183,810	0	217,602	13,400*	*
Indiana	34	24*	0	20,371*	0	—
Iowa	185	0	0	0	0	—
Kansas	409*	0	0	0	0	0
Kentucky	115*	50,000	0	0	0	—
Louisiana	161	0	0	50	0	—
Maine	0*	0	0	16,000	0	—
Maryland	27*	0	0	0	0	*
Massachusetts	0*	4,675	0	62,725*	0	—
Michigan	33	0	0	110,000*	0	0
Minnesota	90*	0	0	60,000	0	—
Mississippi	41	0	0	500*	0	*
Missouri	26*	0	391	3,280	0	*
Montana	0	0	0	2,500*	0	0
Nebraska	140	*	0	12,000*	0	—
Nevada	0	200	0	0	0	—
New Hampshire	0	0	0	7,372	0	—
New Jersey	0*	17,000*	0*	58,000*	0*	*
New Mexico	0	0	0	0	0	*
New York	80*	0	0	31,605*	92*	*
North Carolina	60*	0	0	0	0	—
North Dakota	284	0	0	2,795*	0	—
Ohio	95	4,500	0	61,718	0	—
Oklahoma	366*	85,168*	0	3,000*	0	—
Oregon	20	0	0	22,097	2,352	0
Pennsylvania	6,000	0	0	262,500	0	0
Rhode Island	29*	0	0	3,000	0	—
South Carolina	130*	0	0	0	0	*
South Dakota	60*	0	0	21,500	0	—
Tennessee	250	0	0	0	0	*
Texas	381	0	0	11,600	0	—
Utah	0	0	0	0	2,930*	—
Vermont	0	0	0	0	0	0
Virginia	35	0	0	0	0	0
Washington	54	285	0	74,150	22,800*	*
West Virginia	154	0	0	0	0	*
Wisconsin	9*	0*	0*	92,000*	0*	*
Wyoming	0	0	0	15,569	603	0

NOTES: A double dash (—) indicates that information is not available.

[a] "Released" applies both to stocked birds and relocated wild-trapped birds.

* See "State Notes for Table B.5."

State Notes for Table B.5

Birds Stocked or Released in 1980

Arkansas: Data for wild turkey are for 1980-81. Data for pheasant are for 1981. Connecticut: Data for fiscal year 1980. The 16 turkeys shown were trapped and transferred. The quail shown involved 1,300 birds released at coop non-shooting spring trials and 1,420 released during fall trials. Birds were provided by the club and the State on a 50/50 basis. Of the total 37,443 pheasants released, 33,100 were supplied by State, with the remainder supplied by cooperating sportsmen's clubs. All partridge were chukars. Delaware: Data for quail and pheasant are estimates of private releases. The 58 turkey released were stocked by the State. Idaho: All partridge stocked were chukars. Illinois: Data are for fiscal year 1981. 839 game farm turkeys not reported in Table B.5 were stocked on private shooting preserves. The partridge stocked were all chukars. Indiana: The release of quail was experimental. The 20,371 pheasants released were "put and take" birds. Kansas: The 409 turkeys reported were relocated birds. 302 were relocated in the State. The remaining birds were brought in from Iowa and Missouri. Kentucky: 86 turkeys were released in 1979-80 and 144 were released in 1980-81. The 115 birds reported is the average of the releases during the two fiscal years. Maine: Wild turkeys were stocked in extreme southern Maine in the late 1970's and are now becoming established. Maryland: The 27 turkeys shown were transplanted. 11,458 mallard ducks were released. Massachusetts: Although no wild turkeys were released in 1980, there were relocations within the State of 9 birds in 1979, 16 in 1981, and 73 in 1982. The reported 62,725 pheasants released included approximately 4,000 hens. Michigan: The pheasants stocked were all "put and take" birds. The 33 turkeys were all relocated within the State. Minnesota: The 90 turkeys reported were relocated within the State. Mississippi: The 500 pheasants reported were pen reared birds from Texas. Missouri: The 26 wild turkeys reported were released in 1980-81. Not shown elsewhere are 306 Canada geese released in 1980, and 312 Canada geese released in 1981. Montana: The 2,500 pheasants shown were released in 1981. Nebraska: The 140 turkeys reported were Merriam hybrids which were relocated within the State. While the State released no quail, a few thousand are known to have been released by private organizations for dog trials. The 12,000 pheasants reported is an approximation. New Jersey: Data are for fiscal year 1981. There was a program to hack peregrine falcons in 1980-81. New Mexico: 44 ptarmigan were released in 1980-81. New York: The 80 turkeys reported were relocated within the State. In 1981, 92 wild Hungarian partridge were similarly relocated. 1980 hackings included 8 bald eagles, 9 peregrine falcons, and 2 ospreys. North Carolina: The 60 turkeys reported were released in 1981. North Dakota: The 2,795 pheasants released included 1,050 adult hens and 1,745 adult cocks. Oklahoma: The 366 turkeys reported were relocated within the State. The reported quail and pheasants released include only those from game farms. Rhode Island: The 29 turkeys reported were released in the winter of 1980. South Carolina: The 130 turkeys reported were relocated within the State. Not tabulated are 300 mottled ducks and 600 Canada geese released in 1980. South Dakota About 60 turkeys were relocated within the State. Tennessee: Not tabulated are 6 bald eagles and 20 ospreys which were released in 1980. Utah: All partridge shown were chukars released in 1981. Washington: Data are for fiscal year 1980. All partridge reported were chukars. Not tabulated are the 3,120 tinamou and 160 reeves released. West Virginia: Data are for fiscal year 1980. The 154 reported turkey were relocated within the State. Not tabulated are 452 geese that were released. Wisconsin: Data are for 1978.

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Section C

Harvest and Success Ratios for Selected Species in 1980

The 21 tables of this Section show what was known by the States about harvests and success ratios for 21 species (or groups of species) for 1980. Species were selected to include many of those used in the identification of the activities of the persons who were interviewed in the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. In some cases, the information reported in this Section has been made available in this National summary even though it is available in another form elsewhere. This is most notably the case for big game species and pheasants. For them, a similar tabulation is published each year in the National Rifle Association's Hunting Annual. For other species, there are no known State-by-State National summary tabulations. All species are presented together in this Section for comparability with each other. However, they are comparable in a limited way, since they come from different sources.

Unlike the first two sections of this report, Section C did not lend itself to a format of notes with each Table. The notes for these tables appear at the end of the Section. Their use is encouraged, because they include useful qualifications and insights into the data shown. These arose both from comments on the original questionnaire (in the Appendix) and also from selected information obtained during the follow-up phone calls to the State officials who were most familiar with the data.

One unusual feature of the reporting on the tables of this Section is that a special code is used to indicate when a species was not available in 1980 to the sportsmen of a State for fishing or hunting. Thus, one may use the tables (for example Table C.2) to establish how many of a species (elk) were taken and how successful hunters were, while simultaneously using the table to see where a species (elk) could or could not be legally taken by the sportsman in 1980.

Another characteristic of the reporting used in this Section is that it readily identifies data which are not available. An overview of the tables would suggest (correctly) that much is known about the harvest of big game species and that relatively little is known about the harvest of fish. Fortunately, since these data share both supply and demand characteristics, the 1980 National Survey data base may help to identify some of the items that are shown as not available in the tables of this Section.

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TABLE C.1

Harvest and Success Ratios for Deer in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama (1980-81)	130,532	—	0.62
Alaska	—	41	0.74
Arizona	14,636	22	0.22
Arkansas	45,002	15.8	0.16*
California (1979)	70,100	21.4	0.21
Colorado	54,546	31	0.31
Connecticut	2,565*	9.2*	0.09*
Delaware	1,900	15	0.15
Florida	72,039	—	0.43
Georgia (1980-81)	99,350	27.1	0.38
Hawaii (1980-81)	228	12	0.12
Idaho	45,988	33	—
Illinois	24,718	24	0.24
Indiana	19,780	*	*
Iowa	22,650	24	—
Kansas	10,303	*	0.41*
Kentucky	16,193	13	0.13
Louisiana (1980-81)	105,500	30	0.56
Maine	37,255	*	—
Maryland	14,237	—	*
Massachusetts	3,494	4.4	0.04
Michigan	165,490	20.7	0.21*
Minnesota	77,097	23	0.23
Mississippi (1980-81)	201,677	49.4	1.16
Missouri	53,571*	17.6*	0.17*
Montana	85,164	56	—
Nebraska	18,385	57*	—
Nevada	10,447	50	0.50
New Hampshire	5,384	5.8	0.05
New Jersey (1980-81)	21,191	14	0.14
New Mexico (1979)	22,970	21.6	—
New York	136,255	*	*
North Carolina	28,934	28*	—
North Dakota	26,819	64	—
Ohio	40,499	19.6	0.20
Oklahoma	14,297	7.5	0.08
Oregon	112,245	36	0.36
Pennsylvania	217,141	18.9	0.19
Rhode Island (1981)	246	5.8	0.06
South Carolina (1978-79)	116,069	—	—
South Dakota (1979)	19,883	42.9	0.43
Tennessee	28,540	18	0.18
Texas	265,179	44	0.57
Utah	75,240	33.8	0.34
Vermont (1981)	20,246	13	—
Virginia (1978-79)	88,049*	27*	—
Washington	57,950	24	0.24
West Virginia	54,100	30	0.30
Wisconsin (1980-81)	160,578	25.3	0.25
Wyoming	61,100	56	0.56

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.2

Harvest and Success Ratios for Elk in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	na	na	na
Alaska	101	19	--
Arizona	1,582	28	0.28
Arkansas	na	na	na
California (1979)	na*	na	na
Colorado	27,623	15	0.15
Connecticut	na	na	na
Delaware	na	na	na
Florida	na	na	na
Georgia	na	na	na
Hawaii	na	na	na
Idaho	8,303	13	--
Illinois	na	na	na
Indiana	na	na	na
Iowa	na	na	na
Kansas	na	na	na
Kentucky	na	na	na
Louisiana	na	na	na
Maine	na	na	na
Maryland	na	na	na
Massachusetts	na	na	na
Michigan	na	na	na
Minnesota	na	na	na
Mississippi	na	na	na
Missouri	na	na	na
Montana	14,841	17	--
Nebraska	na	na	na
Nevada	11	92	0.92
New Hampshire	na	na	na
New Jersey	na	na	na
New Mexico (1979)	1,801	13.2	--
New York	na	na	na
North Carolina	na	na	na
North Dakota	na*	na	na
Ohio	na	na	na
Oklahoma	91	51.7	0.52
Oregon	22,800	19	0.19
Pennsylvania	na*	na	na
Rhode Island	na	na	na
South Carolina	na	na	na
South Dakota (1979)	109	35	0.35
Tennessee	na	na	na
Texas	--	--	--
Utah	2,687	13.7	0.14
Vermont	na	na	na
Virginia	na	na	na
Washington	10,820	11	0.11
West Virginia	na	na	na
Wisconsin	na	na	na
Wyoming	17,428	28	0.28

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.3

Harvest and Success Ratios for Antelope in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	na	na	na
Alaska	na	na	na
Arizona	444	65	0.65
Arkansas	na	na	na
California (1979)	450*	94*	0.94*
Colorado	6,873	70	0.70
Connecticut	na	na	na
Delaware	na	na	na
Florida	na	na	na
Georgia	na	na	na
Hawaii	na	na	na
Idaho	1,398	77	—
Illinois	na	na	na
Indiana	na	na	na
Iowa	na	na	na
Kansas	152	76*	0.76*
Kentucky	na	na	na
Louisiana	na	na	na
Maine	na	na	na
Maryland	na	na	na
Massachusetts	na	na	na
Michigan	na	na	na
Minnesota	na	na	na
Mississippi	na	na	na
Missouri	na	na	na
Montana	12,016	74.6	—
Nebraska	716	79*	—
Nevada	419	90	0.90
New Hampshire	na	na	na
New Jersey	na	na	na
New Mexico (1979)	2,758	71	—
New York	na	na	na
North Carolina	na	na	na
North Dakota	na*	na	na
Ohio	na	na	na
Oklahoma	na	na	na
Oregon	893	64	0.64
Pennsylvania	na	na	na
Rhode Island	na	na	na
South Carolina	na	na	na
South Dakota (1979)	2,527	71	0.71
Tennessee	na	na	na
Texas	841	89	0.89
Utah	282	91	0.91
Vermont	na	na	na
Virginia	na	na	na
Washington	na*	na	na
West Virginia	na	na	na
Wisconsin	na	na	na
Wyoming	47,994	84	0.84

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.4

Harvest and Succes Ratios for Moose in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag per sportsman per season)
Alabama	na	na	na
Alaska (1980-81)	5,000*	25	--
Arizona	na	na	na
Arkansas	na	na	na
California	na	na	na
Colorado	na	na	na
Connecticut	na	na	na
Delaware	na	na	na
Florida	na	na	na
Georgia	na	na	na
Hawaii	na	na	na
Idaho	104	86	--
Illinois	na	na	na
Indiana	na	na	na
Iowa	na	na	na
Kansas	na	na	na
Kentucky	na	na	na
Louisiana	na	na	na
Maine	636	91	0.91
Maryland	na	na	na
Massachusetts	na	na	na
Michigan	na	na	na
Minnesota	na*	na	na
Mississippi	na	na	na
Missouri	na	na	na
Montana	389	74.1	--
Nebraska	na	na	na
Nevada	na	na	na
New Hampshire	na*	na	na
New Jersey	na	na	na
New Mexico	na	na	na
New York	na	na	na
North Carolina	na	na	na
North Dakota	14	93	--
Ohio	na	na	na
Oklahoma	na	na	na
Oregon	na	na	na
Pennsylvania	na	na	na
Rhode Island	na	na	na
South Carolina	na	na	na
South Dakota	na	na	na
Tennessee	na	na	na
Texas	na	na	na
Utah	102	86.4	0.86
Vermont	na*	na	na
Virginia	na	na	na
Washington	3	100	1.00
West Virginia	na	na	na
Wisconsin	na	na	na
Wyoming	1,413	84	0.84

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.5

Harvest and Success Ratios for Bear in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	na	na	na
Alaska (1980-81)	1,922*	—	—
Arizona	257	3	0.03
Arkansas (1981)	20	2	0.02
California (1979)	2,800	8.2	0.08
Colorado	651	6	0.06
Connecticut	na	na	na
Delaware	na	na	na
Florida	681	—	0.01
Georgia (1980-81)	33	—	—
Hawaii	na	na	na
Idaho	1,619	8	—
Illinois	na	na	na
Indiana	na	na	na
Iowa	na	na	na
Kansas	na	na	na
Kentucky	na*	na	na
Louisiana	—	—	—
Maine	1,040	*	—
Maryland	na	na	na
Massachusetts	10	0.9	0.01
Michigan	919	9.7	0.10
Minnesota	1,247	—	—
Mississippi	na*	na	na
Missouri	na	na	na
Montana	1,870*	*	—
Nebraska	na	na	na
Nevada	na	na	na
New Hampshire	217	—	—
New Jersey	na	na	na
New Mexico (1979)	1,151	8.2	—
New York	773	*	—
North Carolina	313	4*	—
North Dakota	na	na	na
Ohio	na	na	na
Oklahoma	na	na	na
Oregon	958	9	0.09
Pennsylvaina	921	0.44	0.044
Rhode Island	na	na	na
South Carolina	6	—	—
South Dakota	na	na	na
Tennessee	33	1	0.01
Texas	*	—	—
Utah (1979)	26	13.3	0.13
Vermont (1981)	240	8.5	—
Virginia (1978-79)	435	1.5	—
Washington	2,600	10	0.10
West Virginia	47	1.7	0.02
Wisconsin (1980-81)	855	12.2	0.12
Wyoming	408	—	—

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (—) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.6

Harvest and Success Ratios for Wild Turkey in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama (1980-81)	28,243	--	0.55
Alaska	na	na	na
Arizona (1980-81)	1,591	10*	0.10*
Arkansas (1980-81)	6,704	29*	0.29*
California (1979)	1,600	20	0.20
Colorado	655	--	0.19
Connecticut	*	*	*
Delaware	na	na	na
Florida	12,947	--	0.38
Georgia (1980-81)	4,219	--	0.21
Hawaii	--	--	--
Idaho	26	6	--
Illinois	312	14	0.14
Indiana	54	8.6	--
Iowa	988	25	--
Kansas	404	38.7	0.39
Kentucky	116	0.7	0.01*
Louisiana	3,500	--	0.32
Maine	na	na	na
Maryland	367	--	0.06
Massachusetts	72	6.7	0.07
Michigan	844	8.1	0.08
Minnesota	98	8	0.08
Mississippi (1980-81)	37,875	48.3	0.85
Missouri	26,140*	16.31*	--
Montana	1,025	*	--
Nebraska	3,320	*	--
Nevada	na	na	na
New Hampshire	31	--	--
New Jersey	*	na	na
New Mexico (1979)	4,880	16.4	--
New York (1980-81)	5,510*	*	--
North Carolina	316	4*	--
North Dakota	737	71	--
Ohio	387	20.4	0.20
Oklahoma	10,349	--	0.39
Oregon	22	6	0.06
Pennsylvaina	49,000	6.3	0.06
Rhode Island	na	na	na
South Carolina (1978-79)	7,494	--	--
South Dakota (1979)	1,545	35	0.35
Tennessee (1981)	510	5	0.05
Texas	30,000	22	0.27
Utah	11	31.4	0.31
Vermont (1981)	1,268	8.5	--
Virginia (1978-79)	13,677	9.5	--
Washington	140	11	0.11
West Virginia	5,155	8	0.08
Wisconsin	na*	na	na
Wyoming	1,490	45	0.45

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.7

Harvest and Success Ratios for Mountain Goat in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	na	na	na
Alaska	394	39	--
Arizona	na	na	na
Arkansas	na	na	na
California	na	na	na
Colorado	54	68	0.68
Connecticut	na	na	na
Delaware	na	na	na
Florida	na	na	na
Georgia	na	na	na
Hawaii	*	na	na
Idaho	40	41	--
Illinois	na	na	na
Indiana	na	na	na
Iowa	na	na	na
Kansas	na	na	na
Kentucky	na	na	na
Louisiana	na	na	na
Maine	na	na	na
Maryland	na	na	na
Massachusetts	na	na	na
Michigan	na	na	na
Minnesota	na	na	na
Mississippi	na	na	na
Missouri	na	na	na
Montana	230	67.8	--
Nebraska	na	na	na
Nevada	*	*	*
New Hampshire	na	na	na
New Jersey	na	na	na
New Mexico	na	na	na
New York	na	na	na
North Carolina	na	na	na
North Dakota	na	na	na
Ohio	na	na	na
Oklahoma	na	na	na
Oregon	na*	na	na
Pennsylvaina	na	na	na
Rhode Island	na	na	na
South Carolina	na	na	na
South Dakota (1979)	10	100	1.00
Tennessee	na	na	na
Texas	na	na	na
Utah (1981)	1	100	1.00
Vermont	na	na	na
Virginia	na	na	na
Washington	269	43	0.43
West Virginia	na	na	na
Wisconsin	na	na	na
Wyoming	7	88	0.88

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.8

Harvest and Success Ratios for Mountain Sheep in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	na	na	na
Alaska	781*	34	—
Arizona	39*	78*	0.78*
Arkansas	na	na	na
California	na	na	na
Colorado	79	25	0.25
Connecticut	na	na	na
Delaware	na	na	na
Florida	na	na	na
Georgia	na	na	na
Hawaii	*	na	na
Idaho	32	33	—
Illinois	na	na	na
Indiana	na	na	na
Iowa	na	na	na
Kansas	na	na	na
Kentucky	na	na	na
Louisiana	na	na	na
Maine	na	na	na
Maryland	na	na	na
Massachusetts	na	na	na
Michigan	na	na	na
Minnesota	na	na	na
Mississippi	na	na	na
Missouri	na	na	na
Montana	187	37.4	—
Nebraska	na	na	na
Nevada	66	77	0.77
New Hampshire	na	na	na
New Jersey	na	na	na
New Mexico (1981)	6	54.5	—
New York	na	na	na
North Carolina	na	na	na
North Dakota	na*	na	na
Ohio	na	na	na
Oklahoma	na	na	na
Oregon	19	79	0.79
Pennsylvaina	na	na	na
Rhode Island	na	na	na
South Carolina	na	na	na
South Dakota (1979)	4	100	1.00
Tennessee	na	na	na
Texas	*	—	—
Utah	10	52.6	0.53
Vermont	na	na	na
Virginia	na	na	na
Washington	8	27	0.27
West Virginia	na	na	na
Wisconsin	na	na	na
Wyoming	182	50	0.50

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (—) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1–C.21" which immediately follow Table C.21.

TABLE C.9

Harvest and Success Ratios for Quail in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama (1980-81)	1,382,800	—	20.86
Alaska	na	na	na
Arizona	1,987,103*	—	*
Arkansas	—	—	—
California (1979)	2,022,000	85.9	11.9
Colorado	44,663	—	5.48
Connecticut	—	—	—
Delaware	41,028	—	8.35
Florida	824,238	—	15.38
Georgia (1980-81)	1,229,980	—	16.8
Hawaii (1980-81)	2,432	—	—
Idaho	123,500	*	6.4
Illinois	626,646*	71.5*	7.04*
Indiana	76,812	—	1.43
Iowa	525,000	—	6.04
Kansas	1,186,000	—	9.35
Kentucky (1977-78)	780,500	80*	12.69
Louisiana (1977-78)	452,300	—	13.71
Maine	na	na	na
Maryland	230,300	—	3.29
Massachusetts (1979)	13,384*	50	2.67*
Michigan	na	na	na
Minnesota	na*	na	na
Mississippi (1980-81)	1,504,599	88.2	23.18
Missouri	1,527,369	—	14.16*
Montana	na	na	na
Nebraska	685,250	88	9.16*
Nevada	138,863	—	10.00
New Hampshire	—	—	—
New Jersey (1980-81)	133,611	—	1.4
New Mexico (1981)	147,911	—	6.72*
New York	—	—	—
North Carolina (1977)	947,500	—	11.41
North Dakota	na	na	na
Ohio	na*	na	na
Oklahoma	2,063,432	—	21.2
Oregon	339,211	—	7.51
Pennsylvaina	36,579	11.8	0.40
Rhode Island (1977)	497	1*	—
South Carolina (1978-79)	760,598	—	—
South Dakota (1979)	5,710	—	4.5
Tennessee	1,498,250	100	18.43
Texas	—	—	—
Utah	11,690	—	2.81
Vermont	na	na	na
Virginia (1978-79)	413,578	—	6.00
Washington	269,320	—	5.86
West Virginia	79,900*	29.4*	3.40*
Wisconsin (1980-81)	8,000	—	1.07*
Wyoming	na	na	na

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.10

Harvest and Success Ratios for Grouse in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	na	na	na
Alaska	—	—	—
Arizona	259*	63*	0.63*
Arkansas	na	na	na
California (1979)	14,300	63.8	1.1
Colorado	62,220	—	2.68
Connecticut (1978)	210*	4.5*	0.04*
Delaware	na	na	na
Florida	na	na	na
Georgia	—	—	—
Hawaii	na	na	na
Idaho	181,400*	*	2.76*
Illinois	na	na	na
Indiana	9,539	—	0.98
Iowa	17,300	—	—
Kansas	*	*	*
Kentucky (1977-78)	41,000	90*	3.73
Louisiana	na	na	na
Maine	367 000	69	3.53
Maryland	11,800	—	0.77
Massachusetts (1979)	57,542*	55	1.76*
Michigan	756,660	—	3.4
Minnesota	1,031,000	—	3.8*
Mississippi	na	na	na
Missouri	na*	na	na
Montana	184,901*	*	*
Nebraska	112,461	89	5.18*
Nevada	16,470	—	2.14
New Hampshire	—	—	—
New Jersey (1980-81)	29,695	—	0.3
New Mexico (1979)	4,889	—	2.63
New York	—	—	—
North Carolina (1977)	32,200	—	2.52
North Dakota	136,558*	—	3.20*
Ohio (1978)	75,000	—	2.51
Oklahoma	na	na	na
Oregon	106,106	—	2.06
Pennsylvaina	509,605	37.7	0.92
Rhode Island (1977)	815	2*	—
South Carolina	—	—	—
South Dakota (1979)	174,300	—	7.5
Tennessee	41,900	100	2.29
Texas	na	na	na
Utah	68,322*	—	2.05*
Vermont	—	—	—
Virginia (1978-79)	52,040	—	1.3
Washington	309,870	—	2.74
West Virginia	189,980*	25.5*	2.55*
Wisconsin (1980-81)	1,186,300	69*	4.67*
Wyoming	114,469	—	4.0

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.11

Harvest and Success Ratios for Hungarian/Chukar Partridge in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	na	na	na
Alaska	na	na	na
Arizona	*	—	—
Arkansas	na	na	na
California (1979)	136,300	64.4	4.7
Colorado***	1,606	—	2.23
Connecticut (1978)***	2,430*	50.4*	0.50*
Delaware	na	na	na
Florida	na	na	na
Georgia	na	na	na
Hawaii (1980-81)	1,945	—	—
Idaho	347,500*	*	6.40*
Illinois	3,928*	35*	1.08*
Indiana**	—	—	—
Iowa**	71,000	—	—
Kansas	na	na	na
Kentucky	na	na	na
Louisiana	na	na	na
Maine	na	na	na
Maryland	na	na	na
Massachusetts	na	na	na
Michigan	na	na	na
Minnesota	101,000	—	2.7
Mississippi	na	na	na
Missouri***	—	—	—
Montana	47,289*	*	*
Nebraska	3,000*	—	—
Nevada	218,965	—	10.22
New Hampshire	na	na	na
New Jersey (1980-81)***	*	—	—
New Mexico	na	na	na
New York**	500*	—	—
North Carolina	na	na	na
North Dakota**	144,803	—	3.45
Ohio	na*	na	na
Oklahoma	na	na	na
Oregon	518,859	—	10.70
Pennsylvaina	na	na	na
Rhode Island	na	na	na
South Carolina	na*	na	na
South Dakota (1979)	129,400*	—	4.0
Tennessee	na	na	na
Texas	na	na	na
Utah	23,977*	—	3.09*
Vermont**	—	—	—
Virginia	na*	na	na
Washington	419,800	—	5.41
West Virginia	na	na	na
Wisconsin (1980-81)**	53,300	—	2.55
Wyoming	4,865	—	2.3

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (—) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21. A double asterisk (**) following the name of a State indicates a harvest that is thought to be exclusively Hungarian partridge. Those States with a harvest that is thought to be exclusively chukar partridge are marked with a triple asterisk (***).

TABLE C.12

Harvest and Success Ratios for Pheasant in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	na	na	na
Alaska	na	na	na
Arizona	*	--	--
Arkansas	na	na	na
California (1979)	562,600	76.1	3.4
Colorado	120,460	--	2.29
Connecticut (1978)	198*	4.1*	0.04*
Delaware	1,843	--	0.66
Florida	na	na	na
Georgia	na	na	na
Hawaii (1980-81)	1,205	--	--
Idaho	438,900	*	4.91
Illinois	278,089*	66.3*	2.36*
Indiana	30,996*	--	0.84*
Iowa	1,430,000	--	5.66
Kansas	972,000	--	5.52
Kentucky	na	na	na
Louisiana	na	na	na
Maine	18,000	44	1.67
Maryland	59,000	--	1.55
Massachusetts (1979)	90,670	55	1.59*
Michigan	433,110	--	1.9
Minnesota	466,000	--	3.2
Mississippi	na*	na	na
Missouri	30,791	--	2.60*
Montana	100,063	48.03	3.65
Nebraska	868,920	89	7.17*
Nevada	6,740	--	1.89
New Hampshire	--	--	--
New Jersey (1980-81)	248,048	--	2.4
New Mexico	8,892	--	1.08
New York	--	*	*
North Carolina	--	--	--
North Dakota	72,588	--	2.13
Ohio (1978)	200,000	--	1.00
Oklahoma	49,015	--	3.9
Oregon	302,237	--	4.84
Pennsylvaina	917,490	47	1.20
Rhode Island (1977)	1,686	19*	--
South Carolina	na*	na	na
South Dakota (1979)	943,000	--	7.6
Tennessee	na	na	na
Texas	--	--	--
Utah	228,442	--	2.69
Vermont	*	na	na
Virginia (1978-79)	1,712	18	--
Washington	533,730	--	5.05
West Virginia	na	na	na
Wisconsin (1980-81)	365,700	50*	1.64*
Wyoming	46,449	--	3.7

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.13

Harvest and Success Ratios for Rabbits and Hares in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama (1980-81)	776,996	--	9.30
Alaska	--	--	--
Arizona	708,626*	--	*
Arkansas	--	--	--
California (1979)	1,577,600	90.1	8.8
Colorado	243,984	--	4.95
Connecticut (1978)	605*	12.5*	0.12*
Delaware**	48,705	--	4.77
Florida	185,565	--	6.90
Georgia (1980-81)**	549,765	--	7.4
Hawaii	na	na	na
Idaho	113,600	*	5.24
Illinois	913,756*	77.4*	5.03*
Indiana	573,972	--	3.25
Iowa	590,000	--	4.91
Kansas	277,400	--	5.56
Kentucky (1977-78)**	850,000	95*	8.72
Louisiana (1977-78)**	1,740,100	--	13.69
Maine	227,000	71	4.12
Maryland	423,500	--	3.35
Massachusetts (1979)	77,652*	61*	3.34*
Michigan	1,839,280*	--	*
Minnesota	587,000	--	5.1*
Mississippi (1980-81)	1,125,302	91.1	10.60
Missouri**	1,491,560	--	8.59*
Montana	*	--	--
Nebraska	167,300	93	5.25*
Nevada	105,671	--	8.47
New Hampshire	--	--	--
New Jersey (1980-81)	445,919	--	4.5
New Mexico	*	--	--
New York	--	--	--
North Carolina (1977)	790,900	--	5.89
North Dakota	27,172*	--	3.64*
Ohio (1978)	1,500,000	--	3.53
Oklahoma	502,912*	--	9.5
Oregon	--	--	--
Pennsylvaina	2,566,406	63.8	3.08
Rhode Island	3,387	2*	--
South Carolina (1978-79)**	430,814	--	--
South Dakota (1979)	130,000	--	7.0
Tennessee**	1,091,070	100	8.34
Texas	--	--	--
Utah	135,255*	--	4.89*
Vermont	--	--	--
Virginia (1978-79)**	672,285	--	4.41
Washington	145,100	--	4.14
West Virginia	891,970*	16.8*	5.95*
Wisconsin (1980-81)	1,279,100	65*	3.62*
Wyoming	59,247	--	5.6

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21. A double asterisk (**) following the name of a State indicates a harvest that is thought to have been comprised exclusively of rabbits.

TABLE C.14

Harvest and Success Ratios for Squirrels in 1980

State	Total animals harvested	Success ratio (percent of hunters who were successful)	Average bag (per sportsman per season)
Alabama	1,696,760	—	11.67
Alaska	—	—	—
Arizona	53,813	—	*
Arkansas	—	—	—
California (1979)	191,300	80.4	4.1
Colorado	16,275	—	5.05
Connecticut	—	—	—
Delaware	42,340	—	5.30
Florida	896,137	—	11.82
Georgia (1980-81)	1,248,378	—	10.9
Hawaii	na	na	na
Idaho	—	—	—
Illinois	1,474,398	83.4	13.99
Indiana	842,655	—	5.49
Iowa	845,000	—	7.60
Kansas	272,800	—	6.99
Kentucky (1977-78)	1,073,000	98*	12.62
Louisiana (1977-78)	3,209,000	—	16.72
Maine	33,000	80	—
Maryland	747,000	—	6.12
Massachusetts (1979)	31,824	68	3.45*
Michigan	897,580	—	4.6
Minnesota	514,000	—	6.6
Mississippi (1980-81)	2,588,061	92.1	15.63
Missouri	1,860,886	—	10.40*
Montana	*	—	—
Nebraska	169,800	91	6.59*
Nevada	na*	na	na
New Hampshire	—	—	—
New Jersey (1980-81)	178,721	—	1.8
New Mexico	—	—	—
New York	—	—	—
North Carolina (1977)	1,447,500	—	8.27
North Dakota	21,248	—	4.30
Ohio (1978)	3,500,000	—	14.03
Oklahoma	1,010,537	—	15.1
Oregon	26,812	—	3.32
Pennsylvaina	2,581,924	64.3	3.71
Rhode Island (1977)	1,713	3*	—
South Carolina (1978-79)	806,730	—	—
South Dakota (1979)	120,000	—	7.0
Tennessee	2,154,730	100	13.33
Texas	—	—	—
Utah	—	—	—
Vermont	—	—	—
Virginia (1978-79)	1,931,040	—	8.97
Washington	—	—	—
West Virginia	1,863,000*	80*	7.99*
Wisconsin (1980-81)	2,131,900	85*	8.43*
Wyoming	3,301	—	5.2

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.15

Harvest and Success Ratios for Trout in 1980

State	Total fish harvested	Success ratio (percent of anglers who were successful)	Average catch (per sportsman per season)
Alabama	—	—	—
Alaska	185,851*	—	—
Arizona (1980-81)	2,793,000	70	8.80
Arkansas	—	—	—
California	18,000,000	50	12
Colorado	15,000,000	96	23.8
Connecticut	—	—	—
Delaware	—	—	—
Florida	*	na	na
Georgia	—	—	—
Hawaii	503	—	1.02
Idaho	8,250,000*	—	—
Illinois (1978)	950,000*	—	—
Indiana	—	—	—
Iowa	275,000	—	10
Kansas	—	—	—
Kentucky	167,500	50	6.24
Louisiana	na	na	na
Maine (1975-80)	1,324,000	—	*
Maryland	—	—	—
Massachusetts	—	—	—
Michigan	2,992,400	—	3.25*
Minnesota (1971-75)	—	—	*
Mississippi	na	na	na
Missouri	—	—	—
Montana	—	—	—
Nebraska	—	—	—
Nevada	1,745,943	—	2.50
New Hampshire	—	—	—
New Jersey (1979)	1,515,000	—	14.3
New Mexico (1978)	2,773,560	—	—
New York (1976-77)	9,000,000*	*	11.25*
North Carolina	—	—	—
North Dakota (1975)	171,948	—	—
Ohio	—	—	—
Oklahoma	—	—	—
Oregon (1977)	8,677,800	—	*
Pennsylvania	3,500,000	50	4.00
Rhode Island	—	—	—
South Carolina	—	—	—
South Dakota (1979)	950,000	—	11.0
Tennessee	1,522,466	100	22.41
Texas	—	—	—
Utah	—	—	—
Vermont	—	—	—
Virginia	—	—	—
Washington	41,500,000	—	—
West Virginia	—	—	—
Wisconsin	1,880,000	41	9.26
Wyoming	7,554,910	—	—

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (—) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.16

Harvest and Success Ratios for Salmon in 1980

State	Total fish harvested	Success ratio (percent of anglers who were successful)	Average catch (per sportsman per season)
Alabama	na	na	na
Alaska	602,132*	--	--
Arizona	na	na	na
Arkansas	na	na	na
California	858,000	40	6
Colorado	665,000	--	5.00
Connecticut	*	*	*
Delaware	na	na	na
Florida	na	na	na
Georgia	na	na	na
Hawaii	na	na	na
Idaho	7,000*	21*	0.40*
Illinois (1978)	1,290,000	--	--
Indiana	--	--	--
Iowa	na	na	na
Kansas	na	na	na
Kentucky	na	na	na
Louisiana	na	na	na
Maine (1975-1980)	99,000	--	*
Maryland	na	na	na
Massachusetts	--	--	--
Michigan	1,998,700	--	1.80
Minnesota	--	--	--
Mississippi	na	na	na
Missouri	na	na	na
Montana	*	--	--
Nebraska	na	na	na
Nevada	--	--	--
New Hampshire	--	--	--
New Jersey	na	na	na
New Mexico (1978)	89,653	--	--
New York (1967-77)	*	*	*
North Carolina	--	--	--
North Dakota (1975)	966	--	--
Ohio (1979)	8,000	--	0.11
Oklahoma	na	na	na
Oregon (1979)	278,814*	--	3.80
Pennsylvania	10,000	50	1.00
Rhode Island	na*	na	na
South Carolina	na	na	na
South Dakota	--	--	--
Tennessee	na	na	na
Texas	na	na	na
Utah	*	--	--
Vermont	--	--	--
Virginia	--	--	--
Washington	--	--	1.97
West Virginia	na	na	na
Wisconsin (1977)	560,000	--	--
Wyoming	na	na	na

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.17

Harvest and Success Ratios for Steelhead in 1980

State	Total fish harvested	Success ratio (percent of anglers who were successful)	Average catch (per sportsman per season)
Alabama	na	na	na
Alaska	4,832	—	—
Arizona	na	na	na
Arkansas	na	na	na
California	244,000	40	8
Colorado	na	na	na
Connecticut	na	na	na
Delaware	na	na	na
Florida	na	na	na
Georgia	na	na	na
Hawaii	na	na	na
Idaho	9,000	32	0.60
Illinois	*	na	na
Indiana	—	—	—
Iowa	na	na	na
Kansas	na	na	na
Kentucky	na	na	na
Louisiana	na	na	na
Maine	na	na	na
Maryland	na	na	na
Massachusetts	na	na	na
Michigan	610,900	—	0.55
Minnesota	—	—	—
Mississippi	na	na	na
Missouri	na	na	na
Montana	na	na	na
Nebraska	na	na	na
Nevada	na	na	na
New Hampshire	na	na	na
New Jersey	na	na	na
New Mexico	na	na	na
New York (1976-77)	*	*	*
North Carolina	—	—	—
North Dakota	na	na	na
Ohio	*	—	—
Oklahoma	na	na	na
Oregon (1979)	122,426	—	3.20
Pennsylvania	10,000	50	1.00
Rhode Island	na	na	na
South Carolina	na	na	na
South Dakota	na	na	na
Tennessee	na	na	na
Texas	na	na	na
Utah	na	na	na
Vermont	—	—	—
Virginia	—	—	—
Washington	117,000	—	—
West Virginia	na	na	na
Wisconsin	na	na	na
Wyoming	na	na	na

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.18

Harvest and Success Ratios for Bass in 1980

State	Total fish harvested	Success ratio (percent of anglers who were successful)	Average catch (per sportsman per season)
Alabama	--	--	--
Alaska	na	na	na
Arizona (1980-81)	2,090,000	45	6.58
Arkansas	--	--	--
California	2,352,000	50	12
Colorado	120,000	--	2.00
Connecticut	--	--	--
Delaware (1976)	*	--	*
Florida	2,500,000	--	*
Georgia	--	--	--
Hawaii	--	--	--
Idaho	*	--	--
Illinois (1978)	8,900,000	--	--
Indiana	--	--	--
Iowa (1976)	862,810	--	2
Kansas	--	--	--
Kentucky	500,000	25	0.32
Louisiana	--	--	--
Maine	--	--	--
Maryland	--	--	--
Massachusetts	--	--	--
Michigan	3,756,100	--	3.39
Minnesota (1971-75)	--	--	*
Mississippi	--	--	--
Missouri	--	--	--
Montana	--	--	--
Nebraska	--	--	--
Nevada	972,576	--	3.62
New Hampshire	--	--	--
New Jersey (1979)	1,255,000	--	10.5
New Mexico (1978)	26,999	--	--
New York (1976-77)	6,000,000*	--	7.5*
North Carolina	--	--	--
North Dakota	31,556	--	--
Ohio	--	--	--
Oklahoma	--	--	--
Oregon	*	--	*
Pennsylvania	10,500,000	50	10.00
Rhode Island	--	--	--
South Carolina	--	--	--
South Dakota (1979)	250,000	--	5.00
Tennessee	4,577,610	100	14.56
Texas	5,250,000	43.7	*
Utah	--	--	--
Vermont	--	--	--
Virginia	--	--	--
Washington	*	--	--
West Virginia	--	--	--
Wisconsin	1,900,000	--	4.67
Wyoming	--	--	--

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.19

Harvest and Success Ratios for Striped Bass and Striped Bass Hybrids in 1980

State	Total fish harvested	Success ratio (percent of anglers who were successful)	Average catch (per sportsman per season)
Alabama	--	--	--
Alaska	na	na	na
Arizona (1980-81)	130,900	9	0.41
Arkansas	--	--	--
California	2,448,000	50	12
Colorado	*	*	*
Connecticut	--	--	--
Delaware	--	--	--
Florida	270,000	--	*
Georgia	--	--	--
Hawaii	na	na	na
Idaho	na	na	na
Illinois	*	--	--
Indiana	--	--	--
Iowa	100	--	--
Kansas	--	--	--
Kentucky	700	9	0.13
Louisiana	--	--	--
Maine	*	--	--
Maryland	--	--	--
Massachusetts	*	--	--
Michigan	na	na	na
Minnesota	--	--	--
Mississippi	--	--	--
Missouri	--	--	--
Montana	na	na	na
Nebraska	--	--	--
Nevada	16,820	--	0.75
New Hampshire	*	--	--
New Jersey	--	--	--
New Mexico (1978)	1,572	--	--
New York	--	--	--
North Carolina	--	--	--
North Dakota	na,*	na	na
Ohio	--	--	--
Oklahoma	--	--	--
Oregon (1977)	16,247	--	*
Pennsylvania	1,000	0.2	0.0008
Rhode Island	*	--	--
South Carolina	--	--	--
South Dakota	na	na	na
Tennessee	227,437	92	9.16
Texas	78,750	22.2	*
Utah	--	--	--
Vermont	*	--	--
Virginia	--	--	--
Washington	--	--	--
West Virginia	--	--	--
Wisconsin	--	--	--
Wyoming	na	na	na

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.20

Harvest and Success Ratios for Catfish in 1980

State	Total fish harvested	Success ratio (percent of anglers who were successful)	Average catch (per sportsman per season)
Alabama	--	--	--
Alaska	na	na	na
Arizona (1980-81)	937,800	35	2.95
Arkansas	--	--	--
California	3,100,000	50	15
Colorado	285,000	--	4.00
Connecticut	--	--	--
Delaware	--	--	--
Florida	500,000	--	*
Georgia	--	--	--
Hawaii	2,200	--	0.35
Idaho	*	--	--
Illinois (1978)	10,960,000	--	--
Indiana	--	--	--
Iowa	6,902,510	--	12
Kansas	--	--	--
Kentucky	100,000	10	0.05
Louisiana	--	--	--
Maine	--	--	--
Maryland	--	--	--
Massachusetts	--	--	--
Michigan	2,662,600*	--	2.40*
Minnesota	--	--	--
Mississippi	--	--	--
Missouri	--	--	--
Montana	--	--	--
Nebraska	--	--	--
Nevada	615,004	--	1.50
New Hampshire	--	--	--
New Jersey (1979)	117,000	--	1.0
New Mexico (1978)	394,692	--	--
New York (1976-77)	6,000,000*	--	7.5*
North Carolina	--	--	--
North Dakota (1975)	54,418	--	--
Ohio	--	--	--
Oklahoma	--	--	--
Oregon	*	--	*
Pennsylvania	5,200,000	75	5.00
Rhode Island	--	--	--
South Carolina	--	--	--
South Dakota (1979)	75,000	--	4.00
Tennessee	3,547,190	100	11.28
Texas	1,400,000	49.6	*
Utah	--	--	--
Vermont	--	--	--
Virginia	--	--	--
Washington	*	--	--
West Virginia	--	--	--
Wisconsin	--	--	--
Wyoming	--	--	--

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21.

TABLE C.21

Harvest and Success Ratios for Walleye and Sauger in 1980

State	Total fish harvested	Success ratio (percent of anglers who were successful)	Average catch (per sportsman per season)
Alabama	--	--	--
Alaska	na	na	na
Arizona**	--	--	--
Arkansas	--	--	--
California	na	na	na
Colorado	150,000*	--	3.00*
Connecticut	*	*	*
Delaware	na	na	na
Florida	na	na	na
Georgia	--	--	--
Hawaii	na	na	na
Idaho**	175	--	--
Illinois (1978)	999,000	--	--
Indiana**	--	--	--
Iowa (1976)	1,294,220	--	3
Kansas	--	--	--
Kentucky	175,000	25	0.10
Louisiana	--	--	--
Maine	na	na	na
Maryland	--	--	--
Massachusetts	--	--	--
Michigan	3,948,200	--	3.56
Minnesota (1971-75)	--	--	*
Mississippi	--	--	--
Missouri	--	--	--
Montana	--	--	--
Nebraska	--	--	--
Nevada	783	--	0.50
New Hampshire**	--	--	--
New Jersey (1979)**	9,000	--	0.08
New Mexico (1978)**	49,150	--	--
New York (1976-77)	2,000,000*	--	2.5*
North Carolina**	--	--	--
North Dakota (1975)	621,782*	--	--
Ohio	*	--	*
Oklahoma	--	--	--
Oregon**	*	--	*
Pennsylvania	1,200,000	2	1.00
Rhode Island	na	na	na
South Carolina	--	--	--
South Dakota (1979)	850,000	--	6.00
Tennessee	843,549	100	17.24
Texas	48,000	37.6	*
Utah**	--	--	--
Vermont	--	--	--
Virginia	--	--	--
Washington	*	--	--
West Virgina	--	--	--
Wisconsin	1,700,000	--	2.57
Wyoming	*	--	--

NOTES: When data are not for 1980, the year or season to which they are applicable is shown in parentheses following the name of the State. A double dash (--) indicates that information is not available. Not applicable (na) is used to indicate that either the species was not present in the State in 1980, or that there was no open season for the species. An asterisk (*) is a reference to qualifying information in the "State Notes for Tables C.1-C.21" which immediately follow Table C.21. A double asterisk (**) following the name of a State indicates a harvest that is thought to have been comprised exclusively of walleye.

State Note for
Tables C.1-C.21

Harvest and Success Ratios

Alaska: The reported 5,000 moose harvested is an approximation. The reported 1,922 bear harvested included 1,210 black bear and 712 brown bear. The 781 mountain sheep reported were dall sheep. The 185,851 trout reported excludes lake trout, brook trout, dolly varden, and arctic char. The reported salmon harvest includes both anadromous and landlocked salmon. Arizona: Ten percent of turkey hunters were reported as successful, with an average bag of 0.10 birds per hunter per year. These figures are based on a reported nine percent of hunters who were successful in the fall season (with an average annual bag of 0.09 birds) and 16 percent successful hunters in the spring season (with an average annual bag of 0.16 birds). Data reported for mountain sheep apply to bighorn sheep. Success ratios for quail are not known on a per season basis. For all species of quail present, it is known that the average hunter bags 4.5 quail per trip. Data reported for grouse apply to blue grouse. There is no huntable population of Hungarian partridge in Arizona. The population of chukar partridge present permits only a marginal hunt. Pheasants are available only to those using archery equipment or falconry. Hares are not present. The data reported for rabbits and hares applies to jackrabbits and cottontails. The success ratio is 1.8 rabbits per trip, but it is not known on an annual basis. Similarily, the annual success ratio for squirrels in unknown, but it is known that the average hunter kills 1.3 squirrels per trip. Arkansas: The 0.16 average deer bagged per hunter per year shown is rounded from the reported 0.158 deer per hunter per season. The success ratio (29 percent) and average bag (0.29) shown for turkey apply to 1981. California: The 450 antelope reported as bagged were the result of a closed entry hunt involving the issue of 520 hunter permits. Hunting for elk was not permitted in 1980. Colorado: Striped bass are very uncommon, and data on their harvest are not available. Data reported for "walleye and sauger" apply largely to walleye, since sauger are rare. Connecticut: Harvest data for deer, turkey, grouse, partridge, pheasant, and rabbits apply only to permit-required hunting areas. The first turkey hunt in recent years was conducted in 1981. 21 birds were harvested by 4.9 percent of the turkey hunters. The average bird bagged per hunter was 0.05. Kokanee salmon are present, but no harvest data are available for them. Sauger are not present. Delaware: In 1976, bass fishermen caught an estimated 148,101 bass at an average rate of 0.95 per fishing day in State ponds. Florida: Although trout were once introduced at Eggland Air Force Base, there is no trout fishing in the State. Fishermen caught an estimated 0.3 bass per fishing hour, 0.01 striped bass and 0.2 striped bass hybrid per hour, and 0.75 catfish per hour. The 270,000 fish shown as striped bass harvested included 250,000 hybrids and 20,000 striped bass. Reported, but not tabulated, was a harvest of 400,000,000 panfish which were taken at the estimated rate of 1.25 fish per hour of fishing. Hawaii: 1,245 sheep were reported as harvested, as were 619 goats. In Hawaii, wild goat, feral sheep and mouflon sheep may be hunted. Idaho: Records in Idaho do not show the percent of successful hunters for birds and rabbits and hares. However, average daily bag is kept. On a daily basis, it is estimated that 1980 hunters pursuing each respective species bagged 1.63 quail, 1.00 sage grouse, 0.54 sharptail grouse, 0.74 forest grouse, 1.09 Hungarian partridge, 1.80 chukar partridge, 0.94 pheasants, and 1.41 rabbits and hares per day. The 181,400 grouse shown as harvested consisted of reported harvests of 61,000 sage grouse, 7,500 sharptail grouse and 112,900 forest grouse. Average annual bag per sportsmen was reported to be 2.15 sage grouse per season, 1.54 sharptail grouse per season and 3.17 forest grouse per season. The 276 grouse per hunter per season shown is the weighted average of the season bag of these three species, with the total harvest of each having been used as the weights. The 347,500 partridge shown as harvested represents a reported 118,800 Hungarian partridge plus a reported 228,700 chukars. Success ratios for each were reported on a hunter-day basis as 1.09 hunts per hunter per day and 1.80 chukar partridge per hunter per day. 4.54 Hungarian partridge were taken per hunter per year, as were 7.32 chukars. The 6.40 partridge per hunter per year shown is the weighted average for the two species, with the total birds of each species harvested used as the weights. Kokanee harvested are included in the reported trout harvest, rather than being included in the salmon harvest. Harvests of bass, catfish and other warmwater species are not available by individual species. Collectively, 3.5 million warmwater fish were estimated as the 1980 harvest. Illinois: Harvest data apply only to that taken by licensed sportsmen. Harvest data reported for quail, partridge and pheasants apply to wild populations only. Specifically excluded are 183,810 Game Farm quail of which 19,214 were harvested, 13,400 Game Farm chukar partridge of which 10,032 were harvested, and 217,602 Game Farm pheasants of which 128,239 were harvested. Harvest data for rabbits and hares apply to rabbits only. Any harvested rainbow trout that may have been commonly termed as "steelhead" is reported as a part of the 950,000 trout harvested. Only a limited striped bass fishery exists. Indiana: 10.2 percent of archers, 15 percent of shotgun hunters, and 15.4 percent of muzzleloader hunters bagged a deer in 1980. No single, weighted average success ratio is reported because the number of hunters bagging a limit of two deer (one with a bow and one with a gun) is unknown. Reported pheasant data include 14,033 put-and-take birds from State Fish and Wildlife Areas. Kansas: 13,784 active firearm hunters killed 7,296 deer and 11,189 active archery hunters killed 3,007 deer. 148 active firearm hunters bagged 142 antelope and 51 active archery hunters bagged 10 antelope. 826 active firearm turkey hunters shot 369 turkeys and 219 active archery hunters bagged 35 turkeys. The success ratios and average bag shown for these species were calculated from these data for both firearm and archery hunters using one game animal of a species as a limit per sportsman. Excluding archers, 53 percent of deer hunters, 96 percent of antelope hunters and 45 percent of turkey hunters were successful. Grouse are not present in Kansas. However, 50,900 prairie chickens were harvested by hunters who averaged 1.37 birds each in 1980. Kentucky: Hunters were not permitted to kill bear in 1980. The reported 0.01 average bag of turkey is rounded from the reported 0.007. The reported success ratios of 80 percent for quail, 90 percent for grouse, 95 percent for rabbits, and 98 percent for squirrels are rough approximations. Data from 1979 were reported showing that 571 muskellunge were taken by 5 percent of the fishermen for an average bag of 0.06 fish per angler per year. Maine: 18 percent of residents and 23 percent of nonresidents bagged a deer in 1980. The success ratio for bear is unknown because the number of hunters specifically hunting bear is unknown. (No special license is required and hunters may take a bear during the regular open deer season.) For the years 1975-80, it is estimated that the average fishermen caught 0.68 trout per day in lakes and streams, 0.14 landlocked salmon per day in lakes, and 0.20 bass per day in lakes. Striped bass only occur in saltwater in Maine. Maryland: The average bag of deer per sportsman in 1980 was 0.04 for bow hunters and 0.16 for gun hunters. Massachusetts: Data for rabbits and hares apply to rabbits only. (Harvest and success ratios for showshore hares are not available.) In addition to the tabulated average bag data, Massachusetts reported that, among successful hunters for grouse, the average annual bag in 1979 was 3.20 birds. Comparable statistics were 5.33 quail per successful hunter, 2.91 pheasants per successful hunter, 5.46 rabbits per successful hunter, and 5.07 squirrels per successful hunter. Striped bass are available only in the marine environment, and harvest data for them are not available. Michigan: The reported success ratio for deer hunters is an approximation. The reported average bag of 0.21 deer per hunter in 1980 may be a slight overestimate, since it does not distinguish persons shooting a deer with both a bow and a gun. The average bag per sportsman in 1980 was 5.1 rabbits. For hares, the average bag per sportsman was 3.8. The reported harvest of rabbits and hares was made up of harvests of 1,454,630 rabbits and 384,650 hares. Data reported for the annual bag of trout include the data for steelhead. Data reported for catfish include bullhead. Minnesota: The last moose season was 1979. The quail population is too small to be huntable. The 3.8 grouse per hunter in 1980 shown is the midpoint of the reported range of 1.3 to 6.3 birds per grouse hunter. The 5.1 rabbits and hares per hunter in 1980 is the midpoint of the range reported of 2.4 to 7.8 rabbits and hares per hunter. Catch and effort data for fish in Minnesota are recorded on a fish per hour per angler basis. It is reported that over the period 1971-75, anglers caught 0.51 trout per hour, 0.03 to 0.12 bass per hour, 0.13 to 0.25 walleye and sauger per hour, and 0.05 to 0.10 northern pike per hour. Mississippi: There was no open season on bear in 1980. Pheasant populations are too small to support hunting. Missouri: The 1980 harvest of 53,571 deer shown was made up of 49,426 taken by firearms, 507 taken with historic weapons, and 3,638 taken by archery hunters. The 17.6 percent hunters who were successful shown is the weighted average of the reported percentage of successful hunters for each type of weapon, with the number of animals killed by each method used as weights. 18.4 percent of firearms users bagged a deer, 11.8 percent of historic firearms hunters bagged a deer, and 7.8 percent of archers bagged a deer. The average bag per hunter in 1980 of 0.17 shown is based on the same rationale, using the reported data that firearms users averaged 0.18 deer per season, historic weapons hunters bagged deer at the rate of 0.12 per hunter per year, and archers bagged deer at an annual rate of 0.08 per hunter. The harvest and success ratios shown for turkey were calculated from the report that 16,722 turkeys were bagged by 25.5 percent of the hunters in the spring of 1980, and 9,418 turkeys were taken by 31.4 percent of the fall hunters. The 16.31 percent success ratio is the weighted average of the spring and fall success ratios, with the corresponding bags used as weights. As such, it overestimates the percent of successful turkey hunters somewhat, since up to four turkeys may have been taken during the two seasons by archers and firearms users. (In fact, about six hunters killed four turkeys in 1980.) Missouri had no open season for grouse in 1980. Chukar partridge were only available on game farms. Bag per hunter per day afield was reported to have been 2.34 quail, 0.52 pheasant, 1.39 rabbits, and 1.96 squirrels for persons hunting these species in 1980. Montana: It was reported that 15 percent of the bear hunters in the spring and summer season bagged 899 bear, and that 971 were taken in 1980's fall season by the 8 percent of hunters who were successful. 120 turkeys were taken by the 22 percent of hunters who were successful in the spring season, and the 32.35 percent of fall turkey hunters who killed a turkey bagged 905 of them. Partridge harvested included 46,401 Hungarian partridge and 888 chukars. 20.55 percent of partridge hunters bagged at least one Hungarian partridge, whereas only 0.39 percent bagged a chukar. Average birds per hunter in 1980 for partridge hunters were 4.04 Huns and 3.09 chukars. Five kinds of grouse were hunted. The harvest shown included 75,224 sharptail, 34,589 sage, 40,418 blue, 24,956 ruffed, and 9,714 Franklins grouse. The percents of hunters who were successful for the five species were: 31.26 for sharptail, 19.12 for sage, 26.33 for blue, 18.10 for ruffed, and 7.92 for Franklins. Average bag per hunter in 1980 for persons seeking these birds was 4.56 sharptail, 3.13 sage, 2.34 blue, 2.13 ruffed, and/or 1.68 Franklins grouse. Data are not available on rabbits and hares, or squirrels, since these are unprotected species in Montana. The only salmon present are kokanee. Nebraska: The deer harvested included 16,372 taken with firearms and 2,013 taken by archers. 61 percent of rifle hunters shot a deer and 21 percent of archers bagged a deer. 80 percent of licensed firearms hunters bagged an antelope, accounting for a 1980 total firearms bag of 710. The remaining 6 antelope were taken by the 4 percent of archers who were successful. The success ratios shown for deer and antelope hunters are the weighted averages of the independent success ratios of firearms users and archers, with the corresponding bags used as the weights. As such, they somewhat overstate the success ratios, since one of each species could have been taken with a firearm and a second could have been taken with a bow. Success ratios for turkey were 37 percent for firearms hunters in the spring season, 64 percent for firearm hunters in the fall season, 11 percent for archers in the spring season, and 28 percent for archers in the fall season. Average bag per sportsman per season shown for quail, grouse, pheasant, rabbits and hares, and squirrels applies to the hunters seeking each species. Those average bags per year as a percent of all licensed resident hunters were reported as 4.08 for quail, 0.79 for grouse, 6.08 for pheasant, 1.17 for rabbits and hares, and 1.19 for squirrels. Partridge harvested is an approximation. Nevada: Mountain goat are being hunted once in every three years in Nevada. In the 1978 season, and again in 1981, five permits were issued and three goats were taken. There was not an open season for squirrels in 1980. New Hampshire: Moose are not hunted in New Hampshire. Striped bass occur only in the marine waters of the State. New Jersey: Although turkey were not hunted in 1981, an open season for them began in 1981. In 1981, eight percent of licensed hunters took 71 birds, and the average annual bag per hunter was 0.08 birds. Chukar partridge are legal game in New Jersey during the open season, but the number of birds bagged is very small. New Mexico: The 6.72 average bag for quail applies to 1980. Rabbits and hares are not game animals in New Mexico. New York: Ten percent of hunters for antlered deer bagged one and 55 percent of the deer management permit holders shot a deer in 1980. Success ratios for bear hunters are not available, since they may be and often are taken by persons hunting primarily for deer. 11.6 percent of fall turkey hunters bagged a bird, but the success ratio of spring hunters is not available. The 500 partridge shown as harvested were all Hungarians, and the estimated harvest may be an overestimate. A partial survey in the primary feeding range of pheasants showed that 27 percent of pheasant hunters bagged a bird, and that the average bag per hunter per season was 0.7 in that range. However, this cannot be generalized across the State, since pheasant habitat is not uniformly distributed. All fisheries data are from a 1976-77 Statewide angler survey of 800,000 anglers. Trout, salmon, and steelhead data are kept as one aggregate statistic which is reported under "trout" on Table C.15. North Carolina: The success ratios reported for deer (28 percent), bear (4 percent), and turkey (4 percent) apply to 1977. North Dakota: Elk and antelope were not hunted in 1980, although there probably will be an open season for each again in 1982. The last season for mountain sheep was in 1979. Grouse data reported apply to sharptail grouse, since the pinnated grouse (prairie chicken) is completely protected. Data reported for rabbits and hares (all unprotected species) apply strictly to cottontails, since no data are available for snowshoe hares or whitetail jackrabbits. North Dakota has made only one plant of striped bass. For all practical purposes, there is no striped bass fishery in the State. Stratified data indicate that the 1980 walleye and sauger harvest was nearly twice that of 1975. Reported, but not tabulated, were total 1975 harvests of 1,171,758 yellow perch and 621,460 northern pike. Ohio: The last open season for quail was in 1978. There is no open season for partridge. Steelhead occur only in Lake Erie. 21 percent of Lake Erie fishermen seeking walleye and sauger caught some in 1980, for a total harvest of 2,228,000 fish. This is not tabulated because it excludes an unquantified harvest from a sizeable inland walleye fishery. Oklahoma: Rabbits and blacktailed jackrabbits are hunted in the State. Oregon: There is no open season for mountain goat in Oregon. Reported salmon harvest applies exclusively to the harvest of sport fishermen. Trout fishermen caught an estimated 3.30 fish per day in 1977. In that same year, it has been estimated that striped bass fishermen took an average of 0.64 fish per day, and that warmwater species as an aggregate were caught by the average fisherman at the rate of 8.40 fish per day. The combined total warmwater catch for 1977 was estimated to be 4,529,800 fish. Pennsylvania: There is no open season for elk in the State. Rhode Island: Success ratios reported for quail, grouse, pheasants, rabbits and hares, and squirrels are approximations. Salmon were not available in Rhode Island in 1980, but small numbers of them were found returning by 1982. Striped bass are available to anglers only in the marine environment. South Carolina: Partridge and pheasants are not available to hunters, except as they may occur on shooting preserves. South Dakota: The partridge harvest reported was dominated by Hungarian partridge, since only a remnant chukar population exists. Tennessee: Specifically not tabulated are the unknown data applicable to the shooting preserves in the State. Texas: Fewer than 10 elk, about 2 or 3 bear and a very few desert bighorn sheep are taken annually. Tabulated success ratios for bass, striped bass, catfish, and walleye and sauger apply specifically to anglers who were seeking each species. Catch and effort data were reported per hour of effort as 0.25 bass, 0.06 striped bass, 0.43 catfish, 0.15 walleye and sauger, 1.12 white bass, 0.55 crappie, and 2.66 sunfish for persons seeking each respective species. 67.3 percent of white bass anglers caught them, 33 percent of crappie anglers were successful, and 49 percent of sunfish seekers caught them. The 1980 harvest of white bass was estimated to have been 3.8 million. 7.2 million and 5.75 million sunfish were taken in 1980. Utah: The 68,322 grouse shown as harvested included a reported 22,770 sage grouse and 45,552 forest grouse. The average bag of 2.05 per hunter per year is the weighted average of the 1.50 sage grouse and 2.33 forest grouse per hunter per year reported, with the annual total bags used as weights. The 23,977 partridge harvested in 1980 included 8,466 Hungarian partridge and 15,511 chukars. The average bag figure of 3.09 shown is the weighted average of the reported figures of 2.52 for Huns and 3.41 for chukars, with the respective bags used as weights. The 135,255 rabbits and hares harvested included 127,652 cottontails and 7,603 snowshoe hares only. The average number of cottontails taken by rabbit hunters was 5.07 per hunter in 1980, and the average number of snowshoe hares taken per hunter was 1.88. The average bag figure shown represents the weighted average of the corresponding average bag of each species, with the total bags used as weights. The only salmon available are kokanee, and no harvest data are available for them. Vermont: Moose may not be hunted. No pheasants are available to hunters, except any that may be released by rod and gun clubs. A limited number of striped bass have been introduced, with the first fish beginning to be caught in 1981. Virginia: Deer data are based on a hunter survey, rather than on game checked. Partridge would have been taken from private shooting preserves only. Washington: There is no antelope season in the State. All warmwater fish in Washington are treated as an aggregate called "spiny ray" fishes for the purpose of recording harvest. In

1980, fishermen took an estimated 16,400,000 of them. West Virginia: Data shown for deer, bear, and turkey harvests are actual reported bags. The reported quail, grouse, rabbit and hare, and squirrel harvests are estimated based on the Wildlife Resources Operational Plan. The 891,970 rabbit and hare harvest shown was made up of 867,700 rabbits and 24,270 hares. The 5.95 average bag of rabbits and hares per hunter in 1980 shown is the weighted average of the corresponding average bag statistics for rabbits (5.93) and hares (6.80), with the total bags used as the weights. Similarly, the 16.8 percent success ratio shown is the weighted average of the success ratios reported for rabbits (16.9 percent) and hares (14.7 percent), with the total year's bag of each used as the weights. Wisconsin: While there has been no open season for turkey, there is consideration being given to one for 1983. The success ratios and average bag data tabulated for grouse, pheasant, rabbits and hares, and squirrels are from 1979-80. Wyoming: Harvest data for walleye and sauger are not available. Sauger occur very infrequently in the waters of the State.

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Section D

Land and Water Accessible to the Public for Hunting and Fishing in 1980

Access to a place to fish or hunt is thought to be one of a number of key factors which affects a person's decision to fish or hunt. Access can be restricted by physical distance or by legal barriers. The questions on Enclosure D of the Appendix were motivated primarily by the desire to try to measure the legal access of persons to sporting activities. Information from State files applying to boat accesses and private fee hunting areas was also sought. The resultant responses make up the four tables of this Section.

This attempt to measure legal access has produced some interesting results. A compromise was made for the questionnaire between a narrow definition of "available for use by hunters" on the one hand and the potential nonresponse that may have occurred if a narrow definition had been used. What is reported, then, has been influenced by each respondent's notion of legal access, given only the guidelines of the first page and Enclosure D of the IAFWA questionnaire (see Appendix). The tables' notes identify in many cases exactly what is reported, and the reported data sources are identified. Although the data of this Section may not be as reliable as those reported where accounts are kept (e.g., those in Section B), we believe this to be the best available comprehensive measure of legal access to land and water.

Data for boat accesses and private fee hunting areas are qualified in the notes when appropriate. However, they are often very good estimates, because data about boat accesses have been maintained for some years for other purposes and because many States have restrictions and/or licensing requirements which apply to fee hunting areas.

Interested persons may use the data of this Section to obtain per capita or per acre measures of legal access, boat accesses and private fee hunting areas. These and the measures actually reported will provide valuable insight into the roles of legal access, boat access, and available private fee areas in fishing and hunting activities, when these measures are used with the data from the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

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TABLE D.1

Acres of Land Available to Hunters by Ownership Category, Including Land Leased by the State

State	Federally owned land	Indian land	State-owned land	State-leased land	Other public land	Private land
Alabama	494,201*	na	23,179	643,618*	—	—
Alaska	—	—	—	—	—	—
Arizona	23,900,000	4,700,000	9,000,000	6,000	800,000	10,000,000
Arkansas	2,925,000	0	300,000	129,000	—	15,000,000
California	44,530,000	55,000*	1,940,000	*	1,940,000	51,950,000*
Colorado	20,000,000	—	240,000	230,000	10,000	15,000,000
Connecticut	—	877*	150,000	26,043	20,000*	250,000*
Delaware	5,500	0	33,294	5,178	—	600,000
Florida	1,900,000	23,000	1,400,000	1,600,000	—	20,000,000*
Georgia	1,200,000*	0	90,000	900,000	—	34,900,000
Hawaii	84,815	—	797,266	—	—	106,486
Idaho	35,466,000	60,500	2,435,000	0	0	12,479,000*
Illinois	345,000	0	155,200	8,000	—	20,000,000
Indiana	333,260	na	220,100	*	—	18,000,000
Iowa	450,000*	0	200,000*	na	50,000*	—
Kansas	194,000*	—	61,000	4,135	—	30,000,000*
Kentucky	833,639	—	87,512	96,006	—	6,600
Louisiana	750,000	0	545,851	2,500	35,000	283,010
Maine	—	—	—	—	—	—
Maryland	10,000*	na	250,618	13,683	na	4,900,000*
Massachusetts	40,000	0	250,000	*	—	—
Michigan	2,974,218	*	4,402,550	186,800	103,867	28,887,525
Minnesota	3,677,120	778,240*	5,474,050	*	2,891,378	23,804,800*
Mississippi	1,380,000	0	75,000	—	24,000	100,000
Missouri	2,189,000	0	402,000	265,000	—	26,700,000
Montana	—	—	—	—	—	—
Nebraska	392,800	0	64,768	73,772	15,875*	—
Nevada	60,506,114	1,217,234	134,417	235,000	86,214	8,000,000
New Hampshire	650,000*	0	100,000*	—	5,000*	5,000,000*
New Jersey	61,500	—	363,000	0	0	2,736,000
New Mexico	26,102,088	6,536,020	9,090,372*	*	0	34,990,548
New York	101,765	87,500*	3,500,000	450,000*	—	20,000,000*
North Carolina	1,750,000	0	250,000	*	*	17,062,050
North Dakota	1,321,022*	—	81,800*	78,000	—	500*
Ohio	245,500*	0	333,708	*	0	887,785*
Oklahoma	604,350	0	146,360	500	0	—
Oregon	30,800,000	—	1,700,000	—	160,000	19,700,000
Pennsylvania	500,000	0	3,240,000	4,500,000	100,000	15,000,000
Rhode Island	0	0	36,594	0	500	—
South Carolina	740,000	0	130,140	904,154	0	—
South Dakota	2,950,000	4,844,000	380,000	24,000	0	39,970,000
Tennessee	306,000	0	173,744	1,147,857	0	14,506,707*
Texas	898,303*	0	182,836	38,161	0	*
Utah	31,492,380	2,155,825*	4,077,802	*	—	—
Vermont	279,873	0	265,166	—	—	5,373,961
Virginia	1,930,931	0	222,366	0	4,000*	690,600
Washington	10,000,000	—	3,500,000*	*	—	—
West Virginia	1,100,000	0	88,338	76,600	0	11,423,872
Wisconsin	6,686,337	633,000	1,140,603	143,092	2,410,192	26,000,000*
Wyoming	27,650,802	1,881,920*	4,785,010	0	0	23,948,595

NOTES: A double dash (—) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Table D.1."

State Notes for Table D.1

Acres of Land Available to Hunters by Ownership Category, Including Land Leased by the State

Alabama: The 494,201 acres of Federal land shown as being available for use by hunters include U.S. Forest Service, TVA, and Army Corps of Engineers lands not in Wildlife Management Areas. The 643,618 acres of land classified as "State-leased" land include U.S. Forest Service, TVA, and Army Corps of Engineers lands that are in Wildlife Management Areas. California: The 55,000 acres of Indian lands shown are held in trust by the U.S. Government. They are private lands, and are shown also as part of the total 51,950,000 acres of private lands available for use by hunters. State-leased lands available for use by hunters are so small as to be "insignificant." Connecticut: Figures reported for "other public" and "private" are estimates. The 877 acres shown as "Indian lands" are for Indian use only. Florida: The 20,000,000 acres reported for "private land" is an estimate. Georgia: The 1,200,000 acres of reported Federal land is an approximation. Idaho: The reported private land available for use by hunters represents 100 percent of private timberland and 30 percent of farm and rangeland. Indiana: State-leased lands available for use by hunters is a small number of acres. Iowa: Reported data in "Federal," "State-owned," and "other public" categories are approximations. Kansas: The 194,000 acres reported as "Federal" land includes 166,000 acres in Kansas Fish and Game Management Areas and 28,000 acres which are primarily in Fort Riley and wildlife refuges. "Private" lands shown were reported as "2.4 to 3.6 million" acres. Maryland: Maryland's reported 10,000 acres of Federal land available for use by hunters is an estimate. The reported 4,900,000 acres of private land is total habitat in private ownership, rather than that portion available for use by hunters. Reported on Table D.2 is the estimate that 10% of private lands in Maryland were available for use by hunters in 1980. Massachusetts: State-leased lands available for use by hunters were "insignificant" in 1980. Michigan: Indian lands available for use by hunters were of an unknown (but small) size in 1980. Minnesota: All data are for 1979. The proportion of the reported Indian lands open to hunting is unknown. State-leased land is insignificant. Of the 29,756,000 acres of private land in the State, 80 percent is open to hunting. This factor was used to calculate the 23,804,000 acres shown. Nebraska: The 15,875 acres of land reported as "other public" are private lands in the Habitat Program. New Hampshire: All reported categories except "Indian land" are approximations. New Mexico: No distinction was made between "State-owned" and "State-leased" land in the reporting. New York: The public availability of Indian lands is unknown. The reported 87,000 acres represents all Indian lands in the State, regardless of their availability. The 450,000 acres reported as "State-leased" land represents acreage under cooperative agreement. The private land reported is an approximation, and these 20,000,000 acres feature limited access. North Carolina: North Carolina has a Gamelands Program which provides access to 1,100,000 acres of Federal land, 50,000 acres of State land and 663,000 acres of private land reported in other categories. The "other public" land category is insignificant in the State. North Dakota: Reported data include both land and water available to hunters. Federal land reported includes U.S. Forest Service and U.S. Fish and Wildlife Service land. Lands shown as "State-owned" are NDGFD and SFS lands. The 500 acres of private land shown are from the NDGFD Interest Money Program. Ohio: Federal lands reported include 77,000 acres which the State leased from the

Army Corps of Engineers. The "private" lands reported are under the Cooperative Hunting Program, in which landowners issue permits for hunters to use their land. *Tennessee*: The 14,506,707 acres of "Private" land shown excludes 4,984,217 acres which were open to friends and neighbors only. *Texas*: "Federal" land reported includes 135,000 acres of Army Corps of Engineers land. "Private" land open to hunters was reported as a "trace." *Utah*: Fees are charged for hunting on Indian land. All State lands except parks are open to hunting and some State lands are leased as big game habitat. *Virginia*: The reported 4,000 acres of "other public land" is an estimate. *Washington*: The reported 3,500,000 acres of "State-owned land" is a combination of both State-owned and State-leased land. *Wisconsin*: "Private land" reported is an estimate. Not shown are 1,129,131 acres of water available to hunters for use. *Wyoming*: Indian lands shown are hunted by Indians only.

TABLE D.2

Private Land Available to the Public for Hunting and Fee Hunting Areas

State	Fee Hunting Areas (total number)	Fee Hunting Areas (total acres)	Percent of Private Land Available to the General Hunting Public
Alabama	--	--	--
Alaska	--	--	--
Arizona	4	144,000	62.5*
Arkansas	--	--	75
California	201*	348,941*	10*
Colorado	100	800,000	35
Connecticut	4*	1,402*	--
Delaware	500*	110,000*	50
Florida	--	--	7.5*
Georgia	28	13,650*	--
Hawaii	--	61,000	5
Idaho	25*	1,000*	75
Illinois	126	72,650	60
Indiana	18	5,476	90
Iowa	--	--	80*
Kansas	8	6,139	65*
Kentucky	17	8,041*	30
Louisiana	--	--	10
Maine	1	500*	--
Maryland	5	--	10
Massachusetts	5	1,000*	--
Michigan	--	--	59
Minnesota	19	7,472	80*
Mississippi	10	150,000	25
Missouri	42*	14,000*	*
Montana	--	--	--
Nebraska	--	--	75*
Nevada	--	--	--
New Hampshire	2	--	1
New Jersey	4	500	35*
New Mexico	--	--	--
New York	69*	28,817*	40*
North Carolina	--	--	50
North Dakota	--	--	--
Ohio	37	10,871	47.3
Oklahoma	0	0	60
Oregon	--	--	75*
Pennsylvania	173	--	35
Rhode Island	2	400*	21
South Carolina	12	6,000	--
South Dakota	3	1,740	85
Tennessee	31*	19,750*	65*
Texas	11,209	28,347,625	5*
Utah	--	--	--
Vermont	2	1,000	80
Virginia	4	602,600	10
Washington	--	--	50
West Virginia	0	0	70*
Wisconsin	603	50,580	90
Wyoming	--	--	50*

NOTES: A double dash (--) indicates information which is not available.
*See "State Notes for Table D.2."

State Notes for
Table D.2

Private Land Available to the Public for Hunting and Fee Hunting Areas

Arizona: The 62.5 percent of private land available to the general hunting public shown is the midpoint of the reported range of 50 to 75 percent. California: Reported are 143 licensed pheasant clubs holding 128,111 acres and 58 commercial hunt clubs with 220,830 acres. The 10 percent of private land available to the general hunting public shown represents about 5 million acres and does not apply to posted lands which may be accessed after gaining the owner's permission. Connecticut: The four fee hunting areas reported are commercial shooting areas only. Delaware: Reported fee hunting areas are largely fields and/or marsh sites for waterfowl hunting. Florida: The 7.5 percent of private land available to the general hunting public shown is the midpoint of the reported range of 5 to 10 percent. Georgia: The acreage of private hunting areas reported is an estimate. Idaho: Not shown are 2,500 acres on Fort Hall Indian Reservation which are used for waterfowl hunting. The 1,000 acres shown for fee hunting areas is an estimate. Iowa: Over 80 percent of private land was reported as being available to the general hunting public. Kansas: The 65 percent of private land available to the general hunting public shown is the midpoint of the reported range of 55 to 75 percent. Kentucky: 94 percent of the total acreage of the State's private fee hunting areas belongs in two private member preserves. Maine: The 500 acre estimate of the size of the fee hunting area shown may be a slight overestimate. Massachusetts: The 1,000 acres of fee hunting areas shown was reported as "less than 1,000" acres. Minnesota: The 80 percent of private land available to the general hunting public reported is based in part upon 1970 survey data which showed that 90 percent was available at that time. Missouri: Data are for fiscal year 1980. The reported 14,000 acres of private fee hunting areas is an approximation. It is known that 30 percent of Missouri farms are accessible by permission. A survey is in progress to determine the unknown additional percentage which is unposted and open to the general public. Nebraska: Although 75 percent of private lands in Nebraska are available to the general hunting public, 95 percent of the land is hunted. New Jersey: The 35 percent of private land available to the general hunting public was reported with the qualifier that access to land depends on the quality of the habitat. "Highly productive areas are all posted." New York: All fee hunting areas and acreages reported are commercial shooting preserves. The reported 40 percent of private land available to the general public is an approximation. Oregon: The 75 percent of private land available to the general hunting public shown was reported as "more than 75 percent." Rhode Island: The reported 400 acres of private fee hunting areas is an approximation. Tennessee: The private fee hunting areas reported are commercial shooting preserves. The reported 65 percent of private land available to the general hunting public does not include land open only to friends and neighbors. If this were included, the percentage would rise to 87.32 percent. Texas: The 5 percent of private land available to the general hunting public shown was reported as "less than 5 percent." West Virginia: The reported 70 percent of private land available to the general hunting public is an approximation. Wisconsin: The private fee hunting areas reported are shooting preserves and shooting game farms. Wyoming: The reported 50 percent of private land available to the general hunting public rises to 90 percent if a member of the general hunting public is willing to pay a trespass fee.

TABLE D.3

Warmwater Available to the Public, Boat Accesses, and Warmwater with Public Boat Access in 1980

State	Percent of streams or rivers available to the public	Percent of natural lakes and ponds available to the public	Percent of manmade lakes and ponds available to the public	Number of boat ramps and other boat accesses	Percent of water with public boat access
Alabama	95	80	—	580	95
Alaska	na	na	na	na	na
Arizona	100	na	100	—	95
Arkansas	98	100	73	150	50
California	87.7	97	83	1,354*	*
Colorado	50	75	50	15	25
Connecticut	—	—	—	*	—
Delaware	80	—	80	85*	98*
Florida	100	71	2	5,738	71
Georgia	90	—	65	142	75
Hawaii	20	33	50	13	1.6
Idaho	90*	98	90*	—	90*
Illinois	85	50	50	650	50
Indiana	27	36	36	200	35
Iowa	65	*	90	381	80
Kansas	55*	—	85*	—	85*
Kentucky	100	na	85	290	90
Louisiana	95	70	100*	50*	25
Maine	100*	100*	—	—	*
Maryland	85	—	100	100	75
Massachusetts	*	*	*	*	*
Michigan	—	—	—	*	*
Minnesota	—	—	—	—	*
Mississippi	65	85	90	200*	80
Missouri	86	20*	50	177	50
Montana	80*	85*	85*	18	—
Nebraska	—	43	81	—	—
Nevada	*	*	*	*	*
New Hampshire	90	80	—	250	40
New Jersey	25	.0	10	90	10
New Mexico	96	94	98	16	96
New York	90*	95*	95*	*	95*
North Carolina	75	95	25	390*	75
North Dakota	100	100	100	200*	95*
Ohio	20	15	75	250	75
Oklahoma	2*	na	100	—	100
Oregon	90	90	90	*	—
Pennsylvania	90*	90*	90*	—	—
Rhode Island	50	75	75	43	57
South Carolina	100	—	60	400*	60
South Dakota	90	100	90	180	70
Tennessee	*	*	*	170*	*
Texas	10*	na	80	1,012	90
Utah	—	—	—	—	—
Vermont	100	95	98	129	80
Virginia	75	100	70	277	75
Washington	—	—	—	—	—
West Virginia	76	100	74	158	65
Wisconsin	100*	22*	95*	*	*
Wyoming	na	na	na	na	na

NOTES: A double dash (—) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Table D.3."

State Notes for
Table D.3

Warmwater Available to the Public, Boat Accesses, and Warmwater with Public Boat Access

California: There were 338 warmwater lakes and reservoirs in the State, most of which had public access and launching ramps in 1980. Connecticut: There were 92 boat ramps and other boat accesses in the State. The portion of them which may be classified as access to warmwater is not available. Delaware: The reported 85 boat ramps and other boat accesses is an estimate. The reported 98 percent of warmwater with public boat access includes all tidal waters (Delaware Bay and River, inland bays, other rivers, etc.) and freshwaters. Idaho: Data reported are regarded as minimum estimates. Iowa: 95 percent of Iowa's natural lakes were available to the public for fishing in 1980, as were 75 percent of the State's natural ponds. No data are available, however, for percent access to "natural lakes and ponds" as a single reporting category. Kansas: Shown are the midpoints of the ranges of 50 to 60 percent access to streams and rivers, 80 to 90 percent access to manmade lakes and ponds, and 80 to 90 percent of all water with public boat access. Louisiana: While 100 percent of manmade lakes and ponds were reported as accessible, it was noted that Louisiana has thousands of farm ponds ranging from one-half to twenty acres. Ninety percent of these farm ponds are available for fishing only by permission from the owner of the pond. The 50 reported boat ramps and other boat accesses include only the free ones. There are also numerous marinas providing access to impoundments that charge a fee to fishermen. Maine: Data reported are approximations. If one views the total water of the State without making a distinction between warmwater and coldwater, 83.5 percent has some kind of boat access, although some of these accesses are not "developed" ones. Massachusetts: No distinction between water types can be drawn for purposes of this reporting. For all waters of the State, 90 percent of streams or rivers and 77 percent of natural lakes and ponds were available to the public for fishing in 1980. Both major manmade reservoirs allowed restricted use. There were 120 State-constructed boat ramps and other boat accesses. Less than 60 percent of the State's water had public boat access. Michigan: Data are not available by water type. There were 666 boat ramps and other boat accesses in 1980, plus numerous sites administered by local public agencies and private accesses available to the public for a fee. While a specific percentage is unknown, it was reported that public access was available to a large portion of public waters. Minnesota: Data are not available by water type. There were 2,824 public accesses on State lakes and streams in 1979. Mississippi: The number of boat ramps and other boat accesses as reported was "more than 200." Missouri: There are few natural lakes and ponds in the State. The 20 percent access reported should be viewed with this in mind. Montana: Data reported for percentages of streams or rivers and lakes and ponds which were available to the public for fishing in 1980 are based upon ingress only, rather than upon access. Nevada: Data are not available by water type. For all waters of the State, 70 percent of streams or rivers and 90 percent of each category of lakes and ponds were reported to have been available to the public for fishing in 1980. There were an estimated 40 boat ramps and other boat accesses. About 89 percent of the State's waters, including some 353,200 acres of water, had public boat access. New York: All data reported are approximations. For all waters of the State, there are about 150 boat ramps and other boat accesses. Most ramps are on two-story or warmwater lakes, since there are only a few lakes with only coldwater fish in them. The reported 95 percent of warmwater with public boat access includes carry-on access from State-owned public lands. North Carolina: There were 400 boat ramps and other boat accesses in the State in 1980. Approximately 390 of them were judged to be access to warmwater fishing. North Dakota: Most lakes have some sort of boat launching area, although many are reported as marginal or practical for only smaller boats. Oregon: Data are not available to report boat ramps and other boat accesses by water type. For both categories of water, there were an estimated 846 boat ramps and other boat accesses in the State in 1980. Pennsylvania: Data shown were reported as 90 percent, or more. South Carolina: The 400 boat ramps and other boat accesses shown is an approximation. Tennessee: Data cannot be reported by water type. For all waters of the State, a survey has shown that 88.9 percent of streams or rivers, 100 percent of natural lakes and ponds, and 97.3 percent of manmade lakes and ponds were available to the public for fishing. (4,984,217 acres of these waters were open only to friends and neighbors, however.) The same survey showed that 73.8 percent of the State's water had public boat access. The reported 170 boat ramps and other boat accesses includes only those maintained by the State. It is known that another 30 to 40 are maintained by the Army Corps of Engineers. Texas: The ten percent of streams or rivers shown as available for use by the public for fishing in 1980 was reported as less than ten percent. Wisconsin: Data reported for the percents of streams or rivers, natural lakes and ponds, and manmade lakes and ponds which were available to the public for fishing in 1980 apply only to navigable waters. They do not include the Great Lakes. Also excluded are farm ponds. In 1978 there were 1,096 lakes of both types with boat ramps providing access to 590,024 acres of water, excluding the Great Lakes. (There were additional lakes with accesses, but it is unclear whether they were "boat" accesses.) At least 62 percent of the acreage of inland lakes of both water types had boat access.

TABLE D.4

Coldwater Available to the Public, Boat Accesses, and Coldwater with Public Boat Access in 1980

State	Percent of streams or rivers available to the public	Percent of natural lakes and ponds available to the public	Percent of manmade lakes and ponds available to the public	Number of boat ramps and other boat accesses	Percent of water with public boat access
Alabama	100	na	—	2	100
Alaska	—	—	—	—	—
Arizona	100	na	100	—	95
Arkansas	2	na	27	50	100
California	61*	99	98	*	*
Colorado	85	95	95	80	40
Connecticut	5.1	—	—	*	—
Delaware	25	na	na	na	na
Florida	na	na	na	na	na
Georgia	90	—	65	*	*
Hawaii	na	—	na	—	—
Idaho	90*	98*	90*	—	90*
Illinois	na	100	na	36	100
Indiana	*	100	1	8*	100
Iowa	60	—	—	—	—
Kansas	na	na	na	na	na
Kentucky	na	na	na	na	na
Louisiana	na	na	na	na	na
Maine	100*	98*	—	—	*
Maryland	80	0	100	—	—
Massachusetts	*	*	*	*	*
Michigan	—	—	—	*	*
Minnesota	—	—	—	—	*
Mississippi	na	na	na	na	na
Missouri	45	na	100*	12	75
Montana	80*	85*	85*	97	—
Nebraska	—	na	na	—	—
Nevada	*	*	*	*	*
New Hampshire	85	95	—	150	90
New Jersey	30	50	10	10	10
New Mexico	68	83	98	11	96
New York	50*	—	—	*	70*
North Carolina	82	na	45	10*	20
North Dakota	100	100	100	10*	100*
Ohio	50	na	na	na	na
Oklahoma	na	na	na	na	na
Oregon	90	90	90	*	—
Pennsylvania	90*	90*	90*	—	—
Rhode Island	50	na	17	2	17
South Carolina	100	—	100	10	100
South Dakota	90	na	100	20	90
Tennessee	*	na	na	2	*
Texas	na	na	na	na	na
Utah	—	—	—	—	—
Vermont	95	95	100	193	70
Virginia	60	na	35	10	40
Washington	—	—	—	—	—
West Virginia	75	—	—	—	—
Wisconsin	100*	98*	98*	*	*
Wyoming	59	*	*	—	—

NOTES: A double dash (—) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Table D.4."

State Notes for
Table D.4

Coldwater Available to the Public Boat Accesses, and Coldwater with Public Boat Access

California: There were 3,545 coldwater lakes and reservoirs in the State. Almost all are high elevation, backcountry waters that one could put rubber rafts into. Connecticut: There were 92 boat ramps and other boat accesses in the State. The portion of them which may be classified as access to coldwater is not available. Georgia: Most coldwater streams in Georgia are too small for boat travel, except for canoes. Idaho: Data reported are regarded as minimum value estimates. Indiana: There are only two coldwater streams in the State. Access to them is very limited. The reported 8 boat ramps and other boat accesses includes 4 or 5 on Lake Michigan and 2 or 3 on the two inland coldwater lakes. Maine: Data reported are approximations. If one views the total water of the State without making a distinction between coldwater and warmwater, 83.5 percent has some kind of boat access, although some of these accesses are not "developed" ones. Massachusetts: No distinction between water types can be drawn for purposes of this reporting. For all waters of the State, 90 percent of streams or rivers and 77 percent of natural lakes and ponds were available to the public for fishing in 1980. Both major manmade reservoirs allowed restricted use. There were 120 State-constructed boat ramps and other boat accesses. Less than 60 percent of the State's water had public boat access. Michigan: Data are not available by water type. There were 666 boat ramps and other boat accesses in 1980, plus numerous sites administered by local public agencies and private accesses available to the public for a fee. While a specific percentage is unknown, it was reported that public access was available to a large portion of public waters. Minnesota: Data are not available by water type. There were 2,824 public accesses on State lakes and streams in 1979. Missouri: The 100 percent access to manmade lakes and ponds reported represents the fact that there is access to the one coldwater lake in the State. Montana: Data reported for percentage of streams or rivers and lakes and ponds which were available to the public for fishing in 1980 are based upon ingress only, rather than upon access. Nevada: Data are not available by water type. For all waters of the State, 70 percent of streams or rivers and 90 percent of each category of lakes and ponds were reported to have been available to the public for fishing in 1980. There were an estimated 40 boat ramps and other boat accesses. About 89 percent of the State's waters, including some 353,200 acres of water, had public boat access. New York: All data reported are approximations. For all waters of the state, there are about 150 boat ramps and other boat accesses. Most ramps are on two-story or warmwater lakes, since there are only a few lakes with only coldwater fish in them. The reported 95 percent of warmwater with public boat access includes carry-on access from State-owned public lands. North Carolina: There were 400 boat ramps and other boat accesses in the State in 1980. About 10 of them were judged to be access to coldwater fishing. North Dakota: Most lakes have some sort of boat launching area, although many are reported as marginal or practical for only smaller boats. Oregon: Data are not available to report boat ramps and other boat accesses by water type. For both categories of water, there were an estimated 846 boat ramps and other boat accesses in the State in 1980. Pennsylvania: Data shown were reported as 90 percent, or more. Tennessee: Data cannot be reported by water type. For all waters of the State, a survey has shown that 88.9 percent of streams or rivers, 100 percent of natural lakes and ponds, and 97.3 percent of manmade lakes and ponds were available to the public for fishing. (4,984,217 acres of water were open to friends and neighbors only, however.) The same survey showed that 73.8 percent of the State's water had public boat access. Wisconsin: Data reported for the percents of streams or rivers, natural lakes and ponds, and manmade lakes and ponds which were available to the public for fishing in 1980 apply only to navigable waters. They do not include the Great Lakes. Also excluded are farm ponds. In 1978 there were 1,096 manmade and natural lakes with boat ramps providing access to 590,024 acres of water, excluding the Great Lakes. (There were additional lakes with accesses, but it is unclear whether they were "boat" accesses.) At least 62 percent of the acreage of inland lakes of both water types had boat access. Of the 209 lakes managed for trout, most were reported to have some type of public access. Wyoming: 92 percent of all coldwater lakes and ponds (both manmade and natural) were available to the public for fishing in 1980.

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SECTION E

The seven tables in this Section examine budget characteristics of the fifty-four State members of the IAFWA. Table E.1 shows each State's actual spending for selected programs in 1980. The tabulations are responses to a question asking for the respondent's Department's spending. This question gave rise to answers which should be interpreted with some caution. Spending is shown for fish programs, game programs, nongame programs, and other programs. Because the Departments who make up the IAFWA have varying responsibilities, the "other" category may or may not be made up exclusively of spending for fish and wildlife management. Also, spending for fish and wildlife by other Departments will not be shown. When reported, the composition of this category is explained in the "State Notes for Tables E.1-E.7."

Tables E.2-E.6 show the origin of funds spent in 1980 for the programs of interest, broken down into State funds, Federal funds, and private gifts. In some cases, State accounts are not kept in such a way as to permit the economical recovery of this kind of information. This is particularly true with respect to "nongame," since many management actions undertaken primarily to benefit game species will also benefit nongame species. When known, these kinds of situations are explained in the notes following the tables.

The final table, Table E.7, examines the status of direct nongame funding as it existed in 1980. This table also should be used in conjunction with the appropriate notes, since the State-to-State variability in accounting systems affects the method of reporting results from the initial inquiry. In a limited number of cases, the notes make reference to more recent information obtained during the 1982 tabulation of the 1980 data. In 1982, 17 States had an income tax checkoff for nongame or comprehensive wildlife management programs.

Although the tables of this Section should be interpreted in light of their practical limitations regarding errors of inclusion or exclusion of fish and wildlife spending, or because of differing accounting systems, we feel that this is a useful general reference. The tables show the approximate sizes and funding sources of the principal categories of programs which were used by States for fish and wildlife management in 1980. When combined with the data from the 1980 National Survey of Fishing, Hunting and Wildlife-Associated Recreation and/or other data (such as the size of State populations or household income), the data in this Section may be useful for providing an improved understanding of National and regional participation in fish and wildlife recreation. Many other applications are expected.

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Table E.1

1980 State Fish and Wildlife Management Spending, by Program
(in dollars)

State	Fish program	Game program	Nongame program	Other programs	Total, all programs
Alabama	$ 1,561,853	$ 2,365,790	$ 0	$ 0	$ 3,927,643
Alaska	28,700,000	7,000,000	150,000	9,900,000	45,750,000
Arizona	2,313,800	3,294,200	810,700	3,930,000	10,348,800
Arkansas	3,029,321	2,752,361	0	6,671,697	12,453,379
California	27,483,000	10,544,000	6,568,000	15,619,000	60,214,000
Colorado	9,849,110	14,906,760	1,597,153	266,192	26,619,215
Connecticut	1,026,000	*	—	—	—
Delaware	1,727,307	2,178,007	0	0	3,905,314
Florida	14,191,746	3,580,855	700,720	63,793,836	82,267,157
Georgia	2,751,553	3,807,304	138,286	5,966,722*	12,663,865
Hawaii	1,479,970	377,561	143,735	0	2,001,266
Idaho	3,098,600	3,212,600	0	4,024,100	10,335,300
Illinois	5,799,800*	10,049,200*	*	*	15,849,000
Indiana	2,799,500	2,923,500	0	0	5,723,000
Iowa	2,400,000	6,035,000	7,500	0	8,442,500*
Kansas	3,566,881	4,535,664	264,213	440,356	8,807,114
Kentucky	1,210,850	1,749,450	140,344	5,257,936	8,358,580
Louisiana	2,413,624	4,190,683	0	17,348,713	23,953,020
Maine	1,407,664	1,400,000	60,000	0	2,867,664
Maryland	1,566,994	1,494,440	176,899*	372,530	3,610,863
Massachusetts	2,849,609*	1,085,678	0*	2,294,662	6,229,949
Michigan	7,579,007*	8,709,925*	386,691*	—	—
Minnesota	5,184,800	5,316,500	0	757,200	11,258,500
Mississippi	1,132,609	1,530,807	0	169,454*	2,832,870
Missouri	4,061,171	3,710,756	295,779	21,769,727*	29,837,433*
Montana	5,941,000	6,590,000	252,000	917,000	13,700,000
Nebraska	1,238,570	2,215,643	68,453	0	3,522,666
Nevada	1,542,195	1,568,501	70,935	2,583,671	5,765,302
New Hampshire	1,367,996	339,417	*	2,515,715	4,223,128
New Jersey	1,767,515	2,680,090	321,971	807,776	5,577,352
New Mexico	1,463,736	1,386,209	131,105	4,981,797	7,962,847
New York	*	*	*	*	24,948,000
North Carolina	1,430,420	2,648,662*	*	34,458*	4,113,540*
North Dakota	818,832	1,606,068	0*	2,389,246	4,839,146
Ohio	3,119,611	4,146,779	27,548	5,491,255	12,785,193
Oklahoma	2,199,976	2,869,439	0	9,310,721*	14,380,136
Oregon	13,985,844	4,458,141*	*	4,527,462	22,971,446
Pennsylvania	12,950,000	25,964,729	10,519	1,230,957	40,156,205
Rhode Island	1,066,000*	856,000*	25,000	24,000*	1,971,000
South Carolina	1,431,782	2,774,185	214,739	14,558,433*	18,979,139
South Dakota	1,736,800	4,412,800	47,300	0	6,196,900
Tennessee	3,710,269	6,789,715	460,775*	765,320*	11,726,079
Texas	4,487,000	3,246,000	130,000	65,336,000*	73,199,000
Utah	2,422,000	2,519,500	248,000	5,134,000*	10,323,500
Vermont	550,000	433,000	114,000*	2,014,440*	3,111,400
Virginia	1,618,580	1,764,905	47,358	5,034,551	8,465,394
Washington	—	—	—	—	41,388,712*
West Virginia	2,046,891	1,926,554	0	969,346	4,942,791
Wisconsin	7,954,000	6,920,450	220,000	0	15,094,450
Wyoming	$ 6,300,037	$ 7,832,641	$ 472,841	$ 405,292	$15,010,811

NOTES: A double dash (--) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Tables E.1-E.7" which immediately follows Table E.7.

Table E.2

Sources of Monies Spent in 1980 by State Fish and Wildlife Management Departments for Fish Programs

State	State source (percent)	Federal source (percent)	Private gifts (percent)
Alabama	66	34	na
Alaska	85	15	na
Arizona	81	19	na
Arkansas	75	25	na
California	83	17	na
Colorado	89	11	*
Connecticut	78	22	*
Delaware	40	60	na
Florida	92	8	na
Georgia	85	15	na
Hawaii	30	70	na
Idaho	62	28	10*
Illinois	90*	10*	na
Indiana	78*	22*	na
Iowa	82	18	na
Kansas	--	6	--
Kentucky	69	31	na
Louisiana	78	22	na
Maine	79	21	na
Maryland	58	42	na
Massachusetts	67*	29*	4*
Michigan	93*	7*	na
Minnesota	97	3	*
Mississippi	35*	65	na
Missouri	84	16	na
Montana	73	27	na
Nebraska	63	37	na
Nevada	52	31	17
New Hampshire	49	51	na
New Jersey	82	18	na
New Mexico	69	31	*
New York	--	--	--
North Carolina	74	26	na
North Dakota	48	52	na
Ohio	74	26	na
Oklahoma	75	25	na
Oregon	56	44	na
Pennsylvania	90	10	na
Rhode Island	62	38	na
South Carolina	54	46	na
South Dakota	49	51	na
Tennessee	76	24	na
Texas	73	27	na
Utah	79	21	na
Vermont	25	75	na
Virginia	68	32	na
Washington	--	--	--
West Virginia	87	13	na
Wisconsin	84	16	*
Wyoming	90	10	na

NOTES: Figures rounded to the nearest percent.
A double dash (--) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Tables E.1-E.7" which immediately follows Table E.7.

Table E.3

Sources of Monies Spent in 1980 by State Fish and Wildlife Management Departments for Game Programs

State	State source (percent)	Federal source (percent)	Private gifts (percent)
Alabama	25	75	na
Alaska	41	59	na
Arizona	69	31	na
Arkansas	75	25	na
California	79	21	na
Colorado	85	15	*
Connecticut	—	—	—
Delaware	16	84	na
Florida	56	44	na
Georgia	35	65	na
Hawaii	30	70	na
Idaho	43*	55*	1*
Illinois	80*	20*	na
Indiana	78*	22*	na
Iowa	61	39	na
Kansas	—	18	—
Kentucky	67	33	na
Louisiana	71	29	na
Maine	36	64	na
Maryland	25	75	na
Massachusetts	48	52	na
Michigan	82*	18*	na
Minnesota	98	1	1
Mississippi	35*	65	na
Missouri	70	30	na
Montana	67	33	na
Nebraska	41	59	na
Nevada	30	61	9
New Hampshire	24	76	na
New Jersey	72	28	na
New Mexico	28	72	na
New York	—	—	—
North Carolina	42*	58*	na
North Dakota	29	71	na
Ohio	57	43	na
Oklahoma	39	61	na
Oregon	64	36	na
Pennsylvania	77	23	na
Rhode Island	26*	73*	na
South Carolina	48	37	15
South Dakota	65	35	na
Tennessee	69	31	na
Texas	15	85	na
Utah	53	47	na
Vermont	25	75	na
Virginia	59	41	na
Washington	—	—	—
West Virginia	45	55	na
Wisconsin	82	18	*
Wyoming	90	10	na

NOTES: Figures rounded to the nearest percent.
A double dash (--) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Tables E.1-E.7" which immediately follows Table E.7.

Table E.4

Sources of Monies Spent in 1980 by State Fish and Wildlife Management Departments for Nongame Programs

State	State source (percent)	Federal source (percent)	Private gifts (percent)
Alabama	na	na	na
Alaska	0	100	na
Arizona	74	26	na
Arkansas	na	na	na
California	64	36	*
Colorado	77	33	*
Connecticut	--	--	--
Delaware	na	na	na
Florida	39	61	na
Georgia	33*	67	na
Hawaii	30	70	na
Idaho	na	na	na
Illinois	*	*	na
Indiana	na	na	na
Iowa	--	--	--
Kansas	--	--	--
Kentucky	100	na	na
Louisiana	na	na	na
Maine	34	66	na
Maryland	33	67	na
Massachusetts	*	*	*
Michigan	20*	80*	na
Minnesota	na	na	na
Mississippi	na	na	na
Missouri	95	5	na
Montana	64	36	na
Nebraska	72	28	na
Nevada	25	75	na
New Hampshire	na	na	na
New Jersey	83	14	3
New Mexico	29	71	na
New York	--	--	--
North Carolina	*	*	na
North Dakota	*	*	na
Ohio	100	na	na
Oklahoma	na	na	na
Oregon	*	*	na
Pennsylvania	100	na	na
Rhode Island	25	75	na
South Carolina	38	62	na
South Dakota	25	75	na
Tennessee	62	38	*
Texas	100	na	na
Utah	100	na	na
Vermont	100	na	na
Virginia	3	72	25
Washington	--	--	--
West Virginia	na	na	na
Wisconsin	50	50	na
Wyoming	90	10	na

NOTES: Figures rounded to the nearest percent.
A double dash (--) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Tables E.1-E.7" which immediately follows Table E.7.

Table E.5

Sources of Monies Spent in 1980 by State Fish and Wildlife Management Departments for Other Programs

State	State source (percent)	Federal source (percent)	Private gifts (percent)
Alabama	na	na	na
Alaska	66*	6*	27*
Arizona	74	26	na
Arkansas	--	--	--
California	94	6	na
Colorado	100	na	*
Connecticut	--	--	--
Delaware	na	na	na
Florida	93	7	na
Georgia	98	2	na
Hawaii	na	na	na
Idaho	88	12	na
Illinois	*	*	na
Indiana	na	na	na
Iowa	na	na	na
Kansas	--	--	--
Kentucky	97	3	na
Louisiana	86	14	na
Maine	na	na	na
Maryland	25	75	na
Massachusetts	100	na	na
Michigan	--	--	--
Minnesota	82	4	14
Mississippi	35*	65	na
Missouri	94	6	na
Montana	96	4	na
Nebraska	na	na	na
Nevada	90	10	na
New Hampshire	92	8	na
New Jersey	100	na	na
New Mexico	95	5	na
New York	--	--	--
North Carolina	33*	67*	na
North Dakota	97	3	na
Ohio	100	na	na
Oklahoma	99	1	na
Oregon	85	15	na
Pennsylvania	88	12	na
Rhode Island	100	na	na
South Carolina	86	14	na
South Dakota	na	na	na
Tennessee	100	na	na
Texas	99	1	na
Utah	91	9	*
Vermont	100	na	na
Virginia	98	2	na
Washington	--	--	--
West Virginia	62	38	na
Wisconsin	na	na	na
Wyoming	100	na	na

NOTES: Figures rounded to the nearest percent.
A double dash (--) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Tables E.1-E.7" which immediately follows Table E.7.

Table E.6

Sources of Monies Spent in 1980 by State Fish and Wildlife Management Departments for All Programs

State	State source (percent)	Federal source (percent)	Private gifts (percent)
Alabama	41	59	na
Alaska	74	20	6
Arizona	74	26	na
Arkansas	--	--	--
California	83	17	*
Colorado	86	14	*
Connecticut	--	--	--
Delaware	26	74	na
Florida	91	9	na
Georgia	76	24	na
Hawaii	30	70	na
Idaho	66*	30*	3*
Illinois	84*	16*	na
Indiana	78	22	na
Iowa	67*	33*	na
Kansas	77	23	*
Kentucky	86	14	na
Louisiana	83	17	na
Maine	57	43	na
Maryland	40	60	na
Massachusetts	76*	23*	2*
Michigan	--	--	--
Minnesota	96	2	2
Mississippi	35*	65	na
Missouri	89	11*	na
Montana	71	29	na
Nebraska	49	51	na
Nevada	68	27	5
New Hampshire	73	27	na
New Jersey	80	20	*
New Mexico	77	23	*
New York	82	18	na
North Carolina	53*	47*	na
North Dakota	66*	34*	na
Ohio	81	19	na
Oklahoma	83	17	na
Oregon	63	37	na
Pennsylvania	82	18	na
Rhode Island	47	53	na
South Carolina	77	20*	2*
South Dakota	64	36	na
Tennessee	73	27	*
Texas	94	6	na
Utah	79	21	*
Vermont	76	24	na
Virginia	84	16	*
Washington	79*	19*	2*
West Virginia	65	35	na
Wisconsin	83	17	*
Wyoming	90	10	na

NOTES: Figures rounded to the nearest percent.
A double dash (--) indicates that information is not available.
"na" indicates that information is not applicable.
*See "State Notes for Tables E.1-E.7" which immediately follows Table E.7.

Table E.7

State Nongame Funding Sources in 1980[a/]
(Dollar funding shown when available)

State	General tax revenues	Voluntary purchase of a conservation stamp or other item	Income tax checkoff	Other
Alabama	—	—	pending	—
Alaska	—	—	—	150,000
Arizona b/	—	—	—	—
Arkansas b/	—	—	—	—
California	5,000,000*	20,000	—	250,000*
Colorado	117,581	100	647,200	—
Connecticut b/	—	—	—	—
Delaware b/	—	—	—	—
Florida	23,350*	—	—	54,970,601*
Georgia b/	—	—	—	—
Hawaii	43,120	—	—	—
Idaho	—	—	pending	*
Illinois	150,000	—	pending	—
Indiana	25,000*	—	pending*	—
Iowa	—	7,800	pending	—
Kansas	—	—	127,650*	—
Kentucky	—	—	85,000*	—
Louisiana	—	—	pending*	—
Maine b/	—	—	—	—
Maryland	70,000	—	pending	—
Massachusetts	—	—	pending	—
Michigan	—	20,883	pending*	*
Minnesota	—	—	585,000	—
Mississippi	—	0*	—	—
Missouri	—	—	—	*
Montana	—	—	pending*	—
Nebraska	68,453	—	pending*	—
Nevada	18,000	—	—	—
New Hampshire b/	—	—	—	—
New Jersey	48,000	—	—	45,000*
New Mexico	—	—	0*	—
New York	—	—	pending*	*
North Carolina	*	—	—	—
North Dakota b/	—	—	—	—
Ohio	—	—	pending	*
Oklahoma	—	—	pending*	—
Oregon	—	—	500,000	pending*
Pennsylvania	—	49,828	pending	—
Rhode Island	—	—	—	*
South Carolina	60,000	—	*	—
South Dakota	—	—	—	11,800*
Tennessee	43,000*	0*	—	240,725*
Texas	130,000	—	—	—
Utah	299,500*	—	216,500*	—
Vermont b/	—	—	—	—
Virginia	—	—	*	—
Washington	—	—	—	255,000*
West Virginia	—	—	pending*	—
Wisconsin	55,000	—	—	165,000*
Wyoming	—	—	—	*

NOTES: a/ No State reported nongame funding from "an excise tax on specific goods."
b/ Indicates that no sources of nongame funding are available or pending.
A double dash (—) indicates that no funds were from this source.
*See "State Notes for Tables E.1-E.7" which immediately follows Table E.7.

State Notes for Tables E.1-E.7

Alabama: Data provided by the Division of Game and Fish. They are for the fiscal year 1980-81. Alaska: Data provided by the Department of Fish and Game. Shares of "other" spending do not add to 100 percent due to rounding. The sole source of nongame funding was Federal funds. Arkansas: Data provided by the Game and Fish Commission. California: Data provided by the Department of Fish and Game. They are for the fiscal year 1980-81. 20,000 dollars of private gifts were available for nongame spending. This represented less than one percent of nongame and total spending. The 5 million dollars from general tax revenues used for nongame programs did not go to specific nongame management projects. Instead, it reimbursed DFG for general activities with indirect benefits to nongame species, such as EIS/EIR review and environmental law enforcement. The "other" source of nongame funds which raised 250,000 dollars in 1980 was the sale of personalized license plates. These funds were used to acquire habitat for nongame species. Colorado: Data provided by the Division of Wildlife. Private gifts made up trace amounts of each spending category. Connecticut: Data provided by the Department of Environmental Protection. The total fisheries budget was $1,026,000, and $162,000 was spent for the purchase of wildlife. State, Federal, and private sources of spending were 77.7, 21.8, and 0.5 percent, respectively. No other data are available. Delaware: Data provided by the Division of Fish and Wildlife. Florida: Data provided by the Department of Natural Resources and the Game and Fresh Water Fish Commission were combined for the reporting. No private gifts were reported. DNR reported spending $60,919,835, with 93 percent of this having come from State sources. $10,513,089 was spent for saltwater fish (97 percent State money); nothing was spent for game; $320,582 was spent for nongame (endangered) species (30 percent State monies); and $50,086,164 was spent for parks and recreational programs (92 percent State monies). This $50,086,164 was reported as applying only to "passive and resource oriented recreational" parks and recreational programs. Reported nongame funding figures are from DNR and apply to the fiscal year 1980-81. In addition to the $23,350 from general tax revenues, $17,088,521 came from State parks revenues, $29,917,266 came from surtaxes from documentaries, and $7,964,814 came from earnings on trust fund investments. The FWFGC had available a "State game trust fund" with unspecified earnings. Georgia: Data provided by the Game and Fish Division. The $5,966,722 reported as "other" spending was for law enforcement and hunter safety. The 33 percent State portion of nongame spending was in-kind spending. Hawaii: Data provided by the Division of Aquatic Resources. Idaho: Data provided by the Department of Fish and Game. Percentage breakdowns for "game" and "total" program spending do not add to 100 percent due to rounding. For purposes of reporting, Idaho noted that not all private monies may properly be regarded as "gifts." In addition to an income tax checkoff pending in 1982, Idaho reported the availability of nongame funds through a donations trust fund. Illinois: Data provided by the Department of Conservation. Reported data are for the fiscal year from July 1, 1979 through June 30, 1980. Data reported as "fish" spending included spending for nongame fish, and reported "game" spending included all spending for wildlife. The sole Federal money source was DJ and PR reimbursment. Indiana: Data provided by the Division of Fish and Wildlife. Percentages of State and Federal funding sources shown on Tables E.2 and E.3 are approximations. The $25,000 shown as nongame funding from general tax revenues was available in 1982. The nongame funding income tax checkoff which was pending in 1980 was passed in 1982. Iowa: Data provided by the Conservation Commission. Data for total spending and its State/Federal sources are approximations. Kansas: Data provided by the Fish and Game Commission. State shares are not shown on Tables E.2 and E.3, but Federal shares were reported. The 6 percent Federal share shown in Table E.2 was rounded from 5.5 percent. State and Federal shares shown on Table E.6 were rounded from 76.5 and 23.5 percent, respectively. Private gifts were only 0.02 percent of the total spending for all categories. Income tax checkoff money for nongame funding shown came from 1980 tax returns. Kentucky: Data provided by the Department of Fish and Wildlife Resources. Nongame monies from the income tax checkoff are evenly divided between the Nature Preserves Commission (which buys threatened land) and other nongame efforts of the Department of Fish and Wildlife Resources. Louisiana: Data provided by the Department of Wildlife and Fisheries. The first revenues from the nongame income tax checkoff were expected in 1982. Maine: Data provided by the Department of Inland Fish and Wildlife. They apply to the fiscal year from July 1, 1979 to June 30, 1980. Maryland: Data provided by the Wildlife Administration. Spending reported as "nongame" included endangered species spending. Massachusetts: Data provided by the Division of Fish and Wildlife and the Division of Marine Fisheries. The Division of Marine Fisheries spent about $1.6 million. Sources of the money were the State (about $1 million), Federal funds (about $500,000), and about 100,000 from a power company (shown as "private gifts"). The Division of Fish and Game (F&G) spent $1,249,609 for fish in 1980. 73 percent of this came from State sources, with the remainder being Federally reimbursed. Private gifts were a very small source of funds for F&G in 1980. F&G nongame spending was small in 1980, and its amount was not reportable as a separate account from fish and/or wildlife until 1982. Percentages in Table E.6 do not add to 100 percent due to rounding. Michigan: Data provided by the Department of Natural Resources (DNR). Reported are only the spending of the Fisheries Division, the Wildlife Division, and the Environmental Services Division. These are reported as spending for fish, game and nongame, respectively. Other units within DNR and other State agencies also spend game and fish funds. Capital outlay project spending is not included in the data shown. Data are for fiscal year 1980-81. Sources of nongame funding of unspecified amounts included hunting and fishing license revenues and Federal monies. The income tax checkoff which was pending in 1980 was not approved, and was not pending in September 1982. Minnesota: Data provided by the Division of Fish and Wildlife. Private gifts were 0.2 percent of spending for fish programs. Mississippi: Data provided by the Department of Wildlife Conservation. Data are for the fiscal year July 1, 1980 to June 30, 1981. "Other" spending was for hunter safety. No funds were raised by the availability for voluntary purchase of a "conservation stamp or other item." State funds spent were generated from license sales and other activities; i.e., they were not from the general fund revenues. Missouri: Data provided by the Department of Conservation. All data reported relate to operating expenses, although $29,573,644 of capital improvement expenditures were made in 1980. "Other" spending reported included the Forestry Program. While a Federal portion of 11 percent was reported for 1980, it ordinarily has represented less than 10 percent of the Department's spending. The State's nongame (Natural History) program is funded from the proceeds of a 1/8 percent State sales tax. The 1/8 percent sales tax contributed 59 percent of the total funding in 1980. Montana: Data provided by the Department of Fish, Wildlife and Parks. The Legislature did not convene in 1980. A nongame income tax checkoff was considered but not approved in 1979 and 1981. This is the sense in which it was considered to have been "pending" in 1980, as shown. Nebraska: Data provided by the Game and Parks Commission. They apply to the fiscal year July 1, 1979 to June 30, 1980. A referendum calling for a nongame income tax checkoff and subject to a successful initiative petition drive existed. Nevada: Data provided by the Department of Wildlife. New Hampshire: Data provided by the Fish and Game Department. They apply to the fiscal year ending June 30, 1981. No earmarked funds are used for nongame, so such spending is reported within the other three categories. New Jersey: Data provided by the Division of Fish, Game and Wildlife. Private gifts funded 0.2 percent of the total spending. The $45,000 nongame funds reported as "other" resulted from the Endangered Species Act. New Mexico: Data provided by the Department of Game and Fish. Private gifts were limited to $50 spent for fish. No funds were raised by the available income tax checkoff. New York: Data provided by the Department of Environmental Conservation, Division of Fish and Wildlife. Data are for the 1979-80 fiscal year. The Habitat Protection program spending cannot be partitioned into spending for game and nongame categories. The data summary available is reproduced below:

1979-80 FISH AND WILDLIFE PROGRAM EXPENDITURES
SUMMARY

MAJOR PROGRAM	STATE PURPOSE	CAPITAL CONSTRUCTION	FEDERAL AID	CONSER. FUND	TOTAL
Habitat Protection	225,000	-0-	203,500	1,273,000	1,701,500
Environmental Mgmt.	91,000	3,800	5,300	722,000	822,100
Species Mgmt.	1,007,000	3,003,500	3,558,700	7,795,000	15,364,200
Public Use	881,000	211,700	150,000	1,664,000	2,906,700
Extension Services	138,000	-0-	426,000	893,000	1,457,000
Division Direction	-0-	-0-	67,500	2,629,000	2,696,500
Total	$2,342,000	$3,219,000	$4,411,000	$14,976,000	$24,948,000

Species management for fish was $10,045,200 and species management for game was $5,319,000. These do not represent the total spending for either, however. The primary source of nongame funding has been the Conservation Fund (license revenues), which was supplemented by Federal endangered species funds in 1980. The pending income tax checkoff would provide some additional nongame funds, even though the checkoff funds would not be entirely for nongame purposes. North Carolina: Data provided by the Wildlife Resources Commission. They do not include spending for enforcement, administration, etc. or about $1 million specially appropriated for each of the last two bienniums. Approximately 25 percent of "game" expenditures shown could be allocated to the benefit of nongame. "Other" spending reported was for endangered species. To the extent that specially appropriated monies mentioned above were used for nongame, general funds were used to support nongame. Otherwise, no nongame funding sources were available in any of the reporting categories. North Dakota: Data provided by the Game and Fish Department. Not shown on Tables E.1, E.4, and E.6 are $25,000 reported as nongame spending for commercial fishing. Ohio: Data provided by the Division of Wildlife. Some funds benefiting nongame came from the sales of licenses and permits. Oklahoma: Data provided by the Department of Wildlife Conservation. They apply to fiscal year 1981. Expenditures classified as spending for "other" include such things as law enforcement, administration, etc. The "pending" income tax checkoff has passed, and its first revenue will become available to the Department in 1983. Oregon: Data provided by the Department of Fish and Wildlife. Data shown are for fiscal year 1980.

Game and nongame spending are reported jointly under "game." Private gifts are shown as being zero, although they were reported as being "very, very small." Nongame funds were pending from the Wildlife Heritage Foundation. Pennsylvania: Data reported by the Fish Commission and the Game Commission. Rhode Island: Data provided by the Division of Fish and Wildlife. Spending for "fish" reported included spending for marine fisheries. The reported $856,000 for "game" included $338,000 for land acquisition that also benefits nongame, and some gifts of land for Federal matching funds. "Other" spending included handgun safety spending. Reported shares of State/Federal monies did not equal 100 percent total game spending. Limited amounts of hunting license revenues provided some nongame funding. South Carolina: Data provided by the Wildlife and Marine Resources Department. They apply to the 1980-81 fiscal year. Spending reported in the "other" category includes "Administrative Services, I and E, Marine Resources, Heritage Trust, and Law Enforcement." Percentages in Table E.6 do not add to 100 percent due to rounding. The nongame income tax checkoff would make funds available in 1982 from 1981 taxes. South Dakota: Data provided by the Game, Fish and Parks Department. The $11,800 nongame funds shown came from the sale of trapping, hunting, and fishing licenses. Tennessee: Data provided by the Wildlife Resources Agency. Data apply to the 1980-81 fiscal year. Data shown as "nongame" spending include nongame and endangered species spending, of which $50 was from private gifts. "Other" spending was for boating. General tax revenues used for nongame are annual appropriations to match Federal endangered species funds. The "conservations stamp or other item" which could have been purchased was a "Non-Game License." No one bought one, and a proposal has been drafted to end the program. Hunting and fishing license sales generated the reported $240,725 of nongame funds reported as "other." Texas: Data provided by the Parks and Wildlife Department. "Other" spending includes "administration, law enforcement, parks, and information-education." Utah: Data provided by the Division of Wildlife Resources. They apply to the fiscal year ending in June of 1980. "Other" spending includes "administration, accounting, communications, law enforcement, field services, resource analysis, cooperative agreements, Hardware Ranch Visitor Center, and contributed research." State shares shown on Tables E.2-E.6 include monies from license/permit sales and from general fund appropriation. Private gifts in the amount of $17,600 were less than one percent of the spending in the "other" category. Nongame funding from general tax revenues as reported included $46,100 of endangered species matching funds. Reported revenues from the nongame income tax checkoff are for 1981. Vermont: Data from the Department of Fish and Game. Data reported under "nongame" apply to the Wildlife Habitat program. Data reported in the "other" category apply to administration and law enforcement. Virginia: Data provided by the Commission of Game and Inland Fisheries. Virginia expected to receive $300,000 in 1981 as its first year's receipts from the nongame income tax checkoff. Washington: Data provided by the Department of Fisheries and the Department of Game. The Department of Fisheries spent $21,468,712 in the fiscal year ending June 30, 1980 pursuing its responsibilities for marine food fish, shellfish and anadromous food fish. Of that total, $565,182 came from private sources, including mitigation funds, public utility districts funds, and funds from other private sources. The Department of Game spent $19,920,000 in the same period pursuing its responsibilities for sport fisheries, wildlife management, etc. Approximately 75 percent of the funds were from State sources, with about 24 percent and one percent coming respectively from Federal and private sources. The Department of Game reported receiving $255,000 for nongame from the sale of vanity license plates. West Virginia: Data provided by the Division of Wildlife Resources. They apply to the 1979-80 fiscal year. The nongame income tax checkoff, which is similar to Colorado's, was passed in 1981. Initial funds from it were forecast to become available on July 1, 1982. Wisconsin: Data provided by the Department of Natural Resources. Private gifts were less than one percent of fish spending and $50 of game spending. "Other" sources of nongame funds included $55,000 from license revenues and $110,000 of Federal endangered species funds. Wyoming: Data provided by the Game and Fish Department. The sole source of nongame funds was a trust fund.

Appendix

The questionnaire reproduced in this Appendix was sent to each State member of the International Association of Fish and Wildlife Agencies by its Executive Vice President, Jack H. Berryman, on October 15, 1981. His transmittal letter indicated that data were being sought that would complement the data from the 1980 National Survey of Fishing, Hunting and Wildlife-Associated Recreation, and that "the data being sought are only those best estimates" to which the respondent had "relatively easy access."

The responses by the States were forwarded to the Fish and Wildlife Service for compilation and publication. During this effort, follow-up telephone calls were made in some cases to both clarify and expand upon original responses. The tables in Sections A-E and their notes report data from the returned questionnaires and the associated follow-up calls.

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This questionnnaire is designed to gather specific information regarding the fish and wildlife resources in your state. For each of the items defined below, some specific information is requested. Please note that only best estimates which are relatively readily available are being requested. Pilot respondents indicate that two man-days or less should be involved in a response. You may expect to see the responses of all states in a publication similar to A Summary of Sport Fishing and Hunting License Requirements for the 50 States, as our pilot respondents indicated a desire to create such a reference document.

Enclosure A

Aquatic Habitat--miles or acres of streams and rivers, lakes or impoundments available for use by wildlife and fish species or groups of species in the state.

Enclosure B

Stockings/Releases--amount of a game or nongame species or groups of species stocked or released into the habitat of the state.

Enclosure C

Harvest/Success Ratios--number of a species killed or captured in the state and number killed per unit of sportsmen effort or participation, excluding trapping.

Enclosure D

Sportmen's Access--land and water which is available for public use (e.g., not posted), and facilities which provide access to these areas.

Enclosure E

Expenditures--state, private and Federal expenditures for fish and wildlife programs in your state and the status of nongame funding.

Where reference is made to specific species which are not present in the state, or for which information is unavailable, please mark "N/A."

Please provide the name and phone number of a person who may be contacted for clarification of the information provided during the review and compilation process.

State____

Reference person(s)____________________________________

Phone number(s) of reference person(s)________________

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Enclosure A

Aquatic Habitat

1980*

Aquatic habitat	Warmwater			Coldwater		
	Total number	Total acres	Total miles	Total number	Total acres	Total miles
Rivers and streams						
Lakes and ponds, total						
Manmade						
Natural lakes ponds						
Wetlands						

* Or most recent year available (specify ______________).

Enclosure B

Stocking/Releases

Wildlife type (common name)	Amount stocked/released in 1980* ( )	
	Total number	Pounds
FISH		
Trout (excluding lake trout)		
Salmon		
Steelhead		
Bass, smallmouth		
Bass, largemouth		
Striped bass		
Catfish		
Walleye, sauger		
Shad		
Other (specify)		
BIRDS	Total Number	
Wild turkey		
Quail		
Grouse		
Pheasant		
Hungarian/chukar partridge		
Other (specify)		

* Or most recent year available (specify year).

Enclosure C

Harvest/Success Ratios

Wildlife type (common name)	Year*	Total animals harvested	Year*	Success ratio (percent of successful hunters)	Average bag/catch (per sportsman per season, 0.00)
Deer					
Elk					
Antelope					
Moose					
Bear					
Wild turkey					
Mountain goat					
Mountain sheep					
Quail					
Grouse					
Hungarian/chukar partridge					
Pheasant					
Rabbits, hares					
Squirrels					
Trout (excluding lake trout)					
Salmon					
Steelhead					
Bass					
Striped bass					
Catfish					
Walleye, sauger					

* Please indicate the year for which the item to the right is being reported.

Enclosure D

Sportmen's Access

Hunting

Please indicate the number of acres of lands in each ownership category which were available for use by hunters in 1980.

Ownership	Number of acres
Federal	
Indian lands	
State-owned	
State-leased	
Other public (e.g., county, municipal)	
Private	
Other, not otherwise specified	

Please indicate the number of private fee hunting areas in your state. ________.

What is their combined acreage? ______________.

What is your estimate of the percent of private lands which are not posted and/or open to the general public for hunting (including lands which may be accessed by the general hunting public, but only after gaining the owner's permission)? ________________.

Fishing

Please indicate the estimated percentage of water of each type which was available to the public for fishing in 1980. Also indicate the number of boat ramps and other boat accesses, and the percent of water to which the public has boat access.

Fishery	Stream or river (percent)	Natural lakes and ponds (percent)	Manmade lakes and ponds (percent)	Boat ramps and other boat accesses (number)	Water with public boat access (percent)
Warmwater					
Coldwater					

Enclosure E

Expenditures

Please enter the actual spending for fish and wildlife resources and programs in your state in 1980, including Federal spending.

Spending for	Total state spending by your Department in 1980, in dollars	Sources of monies spent by your Department in 1980, in percent		
		State	Federal	Private gifts
Fish				
Game				
Nongame				
Other				
Total				

Nongame Funding

The Fish and Wildlife Service anticipates the need to conduct a study of alternate sources of funding for nongame programs. For this reason, the following information is sought regarding the type and amount of funding in your state specifically for nongame programs.

Please indicate (1) the type of funding which is either presently available or pending (i.e., legislation has been drafted) and (2) the amount of money generated in 1980 (or some other recent year) specifically for nongame management. (Please indicate all sources that are applicable. Note that actual expenditures were requested in the question above).

Type of funding	Presently available (yes/no)	Pending (yes/no)	Revenue generated for nongame programs (if not 1980, specify year)
General tax revenues			
An excise tax on specific goods			
Voluntary purchase of a conservation stamp or other item			
Income tax checkoff			
Other (specify)			
None available or pending			

BEST DOCUMENT AVAILABLE

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

March 3, 1849

U.S. Department of the Interior

Fish and Wildlife Service

91.

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